PAPER TRADE JOURNAL

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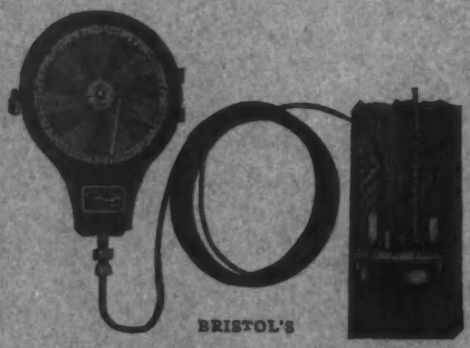

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PAPER TRADE JOURNAL

ESTABLISHED 1872

THE INTERNATIONAL WEEKLY OF THE PAPER AND PULP INDUSTRY AND THE PIONEER PUBLICATION IN ITS FIELD

FIFTY-THIRD YEAR

Published Every Thursday by the

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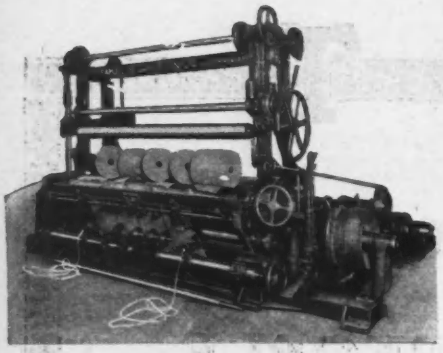

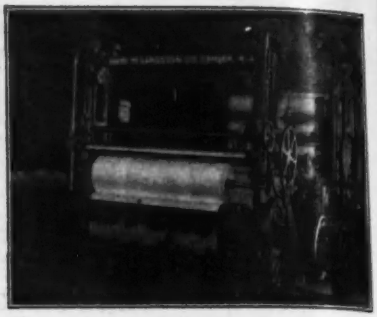

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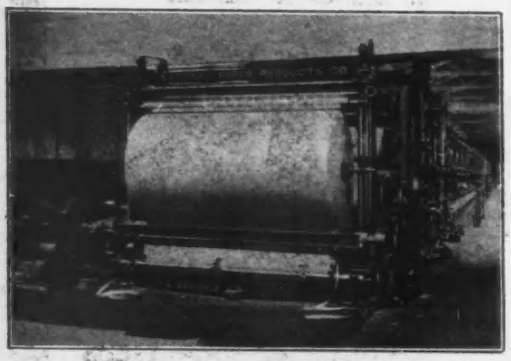

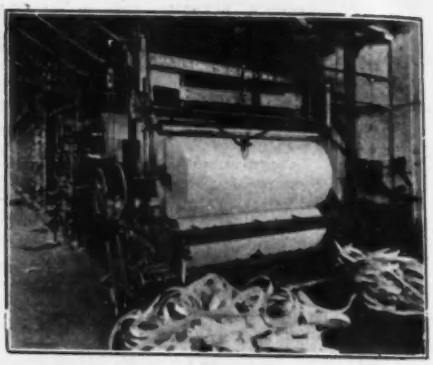

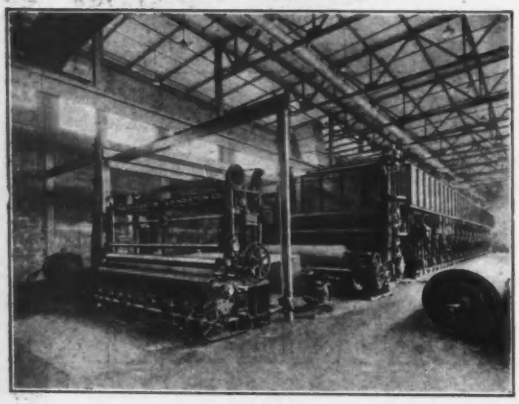

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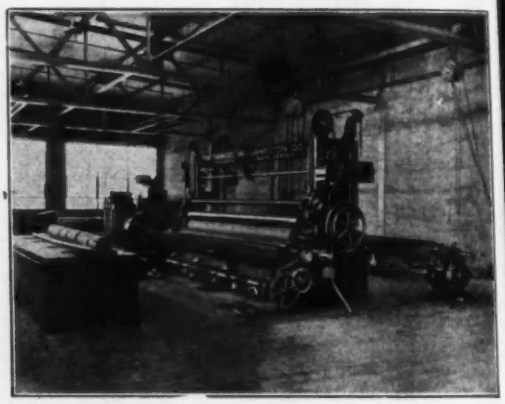

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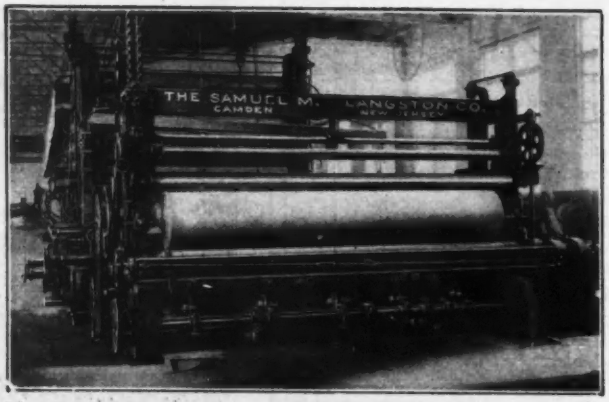

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PAPER

Vol. LXXXI, No. 19 — Thursday, November 5, 1925

The Magazine of the Paper Industry

Paper Production Increases in September

According to Figures Just Issued by the American Paper and Pulp Association and Cooperating Organizations Production Was Slightly Larger During the Month Than in August—Pulp Production of All Grades Also Was Slightly Larger in September Than in August—Figures for the Month

The September production of paper in the United States as reported by identical mills to the American Paper and Pulp Association and cooperating organizations, showed an increase of 0.7 per cent. as compared with August's production following a 2 per cent increase in August over July, according to the Association's Monthly Statistical Summary of Pulp and Paper industry. All grades showed an increase in production as compared with August, with three exceptions.

The Summary is prepared by the American Paper and Pulp Association as the central organization of the paper industry, in cooperation with the Binders Board Manufacturers Association. Converting Paper Mills Association, Cover Paper Association, Cover Paper Association, Newsprint Service Bureau, Wrapping Paper Manufacturers Service Bureau and Writing Paper Manufacturers Association.

The figures for September for same mills as reported in August are:

GRADE	Number of Mills	Production Net Tons	Shipments Net Tons	Stocks on Hand End of Month —Net Tons
Newsprint	66	121,019	127,409	27,326
Book	62	84,195	84,133	47,361
Paperboard	101	126,949	129,264	32,387
Wrapping	78	49,103	53,474	51,637
Bag	24	10,171	10,851	7,463
Fine	79	28,600	29,781	39,646
Tissue	46	12,771	13,834	12,422
Hanging	8	4,054	3,975	1,995
Felts	18	17,721	17,838	2,395
Other Grades	65	19,432	18,449	16,622
Total—All Grades		474,015	489,008	239,254

During the same period, domestic wood pulp production increased 0.1 per cent., this increase being distributed over all grades, with two exceptions. The September totals (mills identical with those reporting in August) as reported by the American Paper and Pulp Association, are as follows:

GRADE	Number of Mills	Production Net Tons	Used Net Tons	Shipments Net Tons	Stocks on Hand End of Month —Net Tons
Groundwood Pulp	99	65,386	83,669	3,759	138,233
Sulphite News Grade	37	34,681	30,290	2,680	9,757
Sulphite Bleached	20	19,989	16,273	3,759	3,268
Sulphite Easy Bleached	6	3,261	3,104	408	1,378
Sulphite Mitscherlich	6	6,645	5,624	1,136	1,478
Sulphate Pulp	9	13,394	12,008	1,717	1,137
Soda Pulp	11	17,317	12,500	4,415	3,691
Other than Wood Pulp	2	53	73	..	58
Total—All Grades		160,726	163,541	17,874	159,000

Rumors of Big Merger of Canadian Mills

[FROM OUR REGULAR CORRESPONDENT]

MONTREAL, Que., November 2, 1925.—The papers here are full of rumors of a possible merger of the Belgo-Canadian Paper Company, St. Maurice Paper Company and Port Alfred Pulp & Paper Corporation under one management. The suggestion is heard that a cash payment of $100 a share will be made for Belgo-Canadian, which would call for a payment of $8,500,000 for this stock and $4,000,000 for the preferred. The St. Maurice Paper Company which would be the central factor would be taken over from the Union Bag and Paper Corporation. In the case of Port Alfred Corporation, arrangements are well under way for the addition of news print machines to the present output of sulphite pulp, so that this company, it is argued, would fit in with the other two mills that at present are producing news print.

The belief that Union Bag and Paper is preparing to redeem its bonds lends color to the theory that control of St. Maurice, held by the former, has, or is about to change hands.

Union Bag owns about 64 per cent of St. Maurice Paper shares and as this constitutes part of the collateral behind Union Bag's $5,900,000 odd bonds, it would be necessary to redeem them if St. Maurice is to be parted with the form part of a merger. Union Bag bonds were up from 99 to 102 last week. They are redeemable on 30 days notice at 105. St. Maurice securities touched a new high for the year last week in the local list.

Belgo rose also to a record price, representing an advance of 15 points this month.

Although Laurentide does not, according to the present layout, form part of the merger picture, that stock was stronger.

Frank Smith Co. Installs New Machine

[FROM OUR REGULAR CORRESPONDENT]

MIDDLETOWN, Ohio, November 2, 1925.—Work already has commenced on the installation of a new paper-making machine in the plant of the $1,500,000 Frank Smith Paper Company on Columbia avenue, the new machine to be the largest in the city and of a type similar to the original machine, it was announced last week.

The Smith Paper company, one of the units of the Paul A. Sorg Paper organization, has been busy ever since it started operations nearly a year ago.

Its plant is said to be the most modern paper plant in the United States, being entirely operated by electricity, with exception of steam for the driers, which is piped over from the Sorg-Oglesby mills in a tunnel which connects the two mills.

A part of the machinery already has arrived and is now in the Smith machine room.

Thunder Bay Co. Gets Large Timber Limits

Canadian Subsidiary of Consolidated Water Power & Paper Co. Given Right to 2,000 Square Miles of Spruce Lands in Ontario—Company Will Undertake at Once Development of New Paper Mill—Kimberly-Clark Build New Warehouse at Neenah

APPLETON, Wis., November 3, 1925.—Word has been received here that the Consolidated Water Power and Paper Company, which maintains a plant here, has through its Canadian subsidiary, the Thunder Bay Paper Company, Port Arthur, been given rights to a tract of 2,000 square miles of government owned spruce land in upper Ontario.

Announcement has been made by the minister of lands of the province of Ontario, according to word from Port Arthur, that the Thunder Bay Company was one of the successful bidders for what are known as the Nipigon spruce limits, a large area of land north of Lake Superior. Under the minister's announcement, the Consolidated Company's subsidiary will receive the timber rights to 2,000 square miles, or more than 1,200,000 acres, which is as large as three ordinary sized counties in Wisconsin.

The grant, according to the officers of the company, will have no effect upon the company's Wisconsin mills, for which there already is a sufficient wood supply, but will mean an expansion of the company's business in Canada that within the next few years will double the present news print production of all its mills

Under the provisions of the agreement with the province of Ontario by which the Thunder Bay Company will receive the timber from this great tract of land, the company must increase its production over a period of years.

The company guarantees to be producing 100 tons of paper per day by October 1, 1927 and 200 tons of paper per day by October 1, 1929, with the further guarantee that the production will eventually be increased to 400 tons per day, an amount greater than the combined printed paper production of the Wisconsin Rapids and Biron mills. Cheap waterpower for the manufacture of paper will be available to the company from the Big Nipigon power development project.

The Consolidated Company will pay the Ontario government for the pulpwood as it is cut, without acquiring possession of the land itself.

It is further provided that the timber on the tract granted the local company is non-explorable, so that it can be used only as it is manufactured into pulp and paper on Canadian soil. The terms of this agreement, however, do not affect the status of other timber holdings of the company, which supply its Wisconsin mills.

The Consolidated Water Power and Paper Company gained its first foothold in Canada four years ago when possession was acquired of a defunct pulp mill at Port Arthur. A Canadian corporation was organized to handle this property which was called the Thunder Bay Paper Company, and the mill, rebuilt, is now producing 125 tons of pulp daily which is being shipped to the company's Wisconsin mills.

First word that the company's bid for the tract had been successful was received by George W. Mead, president of the Consolidated, from the News-Chronicle at Port Arthur.

Telegrams from Mr. Mead

Mr. Mead sent the following telegram in reply:

"We have your pleasing telegram bringing the news that Ontario minister of lands named our company as one of the successful tenderers for Nipigon spruce limits. We congratulate the city of Port Arthur and thank its officials and citizens who have united their efforts with our own in bringing about this satisfactory result. With an ample supply of spruce wood now a certainty, Thunder Bay Company will at once undertake the new development of a paper mill. All purchases of equipment will be made in Canada so far as possible and construction work will begin early next spring. This work will afford employment to a large crew of men, many of whom will be retained in the permanent operating force.

"This adds another important unit to our large organization and the best of intensive and scientific control will be exercised to make the new plant as successful as those which we have built and operated during the past 25 years. We therefore believe that the province of Ontario through its minister of lands acted soundly and wisely."

Kimberly-Clark Build Warehouse

Having only recently completed the construction of a new five-story warehouse, size 50 by 140 feet, at its Neenah mill, the Kimberly-Clark Company is now at work on the constuction of another warehouse.

Whereas, the other building was longer, the new building now in construction is wider and higher. Its dimensions are 80 by 90 feet. It is a five-story building, with an extra floor in the basement. The building is being erected by the Wisconsin Engineering Company, of Green Bay. It replaces an old boiler plant which was torn down. It will be used for storing raw materials and finished products, especially Cellucotton products. A part of the other warehouse recently completed will provide office quarters for the chief of construction's staff and the overflow from the main office building, as well as a laboratory.

The old laboratory across the street from the mill has been dismantled, and on this site the Neenah Paper Company will erect a new office building.

Northern Paper Mills Build Towers

Northern Paper Mills of Green Bay are excavating for the transmission line towers on each side of the Fox River which will carry their proposed high tension line between Green Bay and White Rapids on the Menominee River. The foundations of the towers at the Fox River are 52 feet square and the towers are to be 265 feet high. This great height is necessary to allow boats to pass underneath.

J. W. Crocker in Wisconsin

Crop rotation of jackpine as a means of augmenting the pulp wood supply of paper mills was the subject of investigation in this part of the state this week by J. W. Crocker, New York, forester of the American Paper and Pulp Association.

While in this vicinity Mr. Crocker conferred at Oshkosh with O. T. Swan, secretary of the Northern Hemlock and Hardwood Manufacturers Association, on forestry problems as they affect the paper industry. He inspected various forest growths in the state.

De Pere Paper Mfg. Co. Incorporates

Articles of incorporation of the De Pere Paper Manufacturing Company, of De Pere, have been filed with the secretary of state at Madison.

The company will issue 1,000 shares of 7 per cent preferred stock with a par value of $100, and 3,000 shares of common stock without par value. Those associated in the corporation are Morris Miller, Herman Miller and John Miller.

This new company expects to start operations in the old De

(*Continued on page 72*)

RESULTS

Three Bird Screens feeding a 234 inch paper machine at the Donnacona Paper Company's mill produced 1,519.8 tons of news paper during a fifteen day period. A speed of 790 to 800 feet per minute was maintained. The maximum day's production was 107.3 tons; the average, 101.4 tons.

Four Bird Screens attached to a 234 inch machine at the Kenora Mills of the Keewatin Lumber Company helped to establish on March 5, 1925, a record production of 119.7 tons of news print. The speed was 855 feet per minute.

Three Bird Screens operating with a 206 inch news print machine at the Algonquin Paper Company's mill produced paper at an average speed of 780 feet per minute for 76 consecutive hours, without a break. For the 6 day week the machine ran 96.6 per cent perfect, turning out over 600 tons of paper. A Vickery Felt Conditioner on the first press aided materially in effecting this almost continuous production.

Results prove over and over again that Bird Screens are absolutely essential for quantity production of uniform quality of paper.

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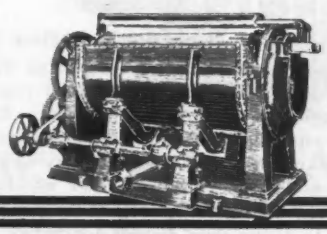
BIRD MACHINERY

The BIRD SCREEN



Philadelphia Demands for Immediate Needs

Demand For Small Lots, However, Is Broadening and the Aggregate Considerably More Than a Few Weeks Ago—Owing to the Downward Revision in News Print Dealers Look Forward to Lower Prices in Other Papers—Paper Stock Continues Scarce

[FROM OUR REGULAR CORRESPONDENT]

PHILADELPHIA, Pa., November 2, 1925.—Small order purchases of paper are more freely booked with the closing days of the month. There is no great volume of any of the grades of fine or coarse papers being bought by individual consumers at this time. It is quite evident that the manufacturers and commercial enterprises here are confining their paper stocks to the moment's needs. However, the demand for small lots is broadening and in the entirety bulk considerably above the demands of the early month, and keep the shippers busily engaged in meeting the hurried calls for replacement of diminishing stocks in the hands of the consumers. Of course this small lot buying entails a heavier overhead than bulk buying and the dealers are not reaping the profits which ordinarily follow where purchases are larger. Collections are excellent with payments promptly made when due and there is not the tendency to haggle over prices.

Forecast Lower Prices

The drop in the prices of newsprint for 1926 deliveries by the Canadian Manufacturers leads the local dealers to look forward to lower quotations for cheaper grades of book papers and for some other grades of printers' papers. Those among the trade who long have been identified with paper distribution in this section believe that the decline will be in adjustment to the newsprint situation and also will extend to wrappings, with a tendency to keep the brakes on general mill buying at this time and for some time to come. For this reason many dealers are not making heavy mill purchases preferring to hold off until after the first of the year. There are plenty of stocks on hand to meet requirements until well into the New Year. Buying in all grades of fine papers is brisker but confined to immediate needs with prices holding firmly.

Foreign Competition in Kraft

There is much speculation over the analogous situation in the sulphite and kraft paper markets as they pertain to the Quaker City trade. Numerous grades of foreign kraft now being sold here are either on a parity with the quotations of sulphites or, in the case of good quality kraft wrappings, lower. This gives the Philadelphia market for kraft papers a peculiar price comparison in the fact that these grades are selling for less than some manufacturers quote for sulphites. The present analogous price situation can only be accounted for in the supposition of lower cost of kraft production in the foreign mills.

It has not been necessary for the local jobbers to go outside their own circle for accommodations in krafts. Distributors here are selling to one another krafts at attractive prices below present mill quotations from their ample supplies as they have often been called upon to do within recent weeks. A very good grade of wrapping paper is selling at 3/8 cents less than butchers finish fiber now quoted at 5 3/8 F. O. B. Mill.

Paper Stocks Drifting

There is very little stock moving from the local warehouses. Those firms with travelers on the road report it is almost impossible to secure mill orders at this time. Rag dealers conducting large importing business are unable to persuade the mill owners to place orders at this time and so have curtailed their foreign imports considerably. The whole raw material market is simply drifting along waiting the opening of the new year and its business prospects. In giving their reasons for failure to place orders for raw stocks at this time the manufacturers state they will not come into the market, except for urgent needs of the moment, until after the opening of the new year and some definite indication of what it holds for the future of the paper business. Although this stand of the mills has brought present business virtually to a standstill, the prices have not been changed or reduced to lower levels. There are no accumulations of any of the grades in the warehouses and this accounts for the hold in prices. Some of the dealers who have been handling rags while the demand was at its height have cleaned out their warehouses and will not stock until further mill buying is evident. This of course applies to domestic rags, foreign shipments ordinarily being handled direct from steamer to consumer.

Proposed Sale of Mann Mills

Three offers from paper manufacturing concerns have been made for the purchase of the mills of the William Mann Company at Lambertville, N. J. The mills formerly devoted to the manufacture of copying papers have been closed since last fall because of the dearth of orders for these papers which have been supplanted by the carbon papers. The Mann Company whose headquarters are located here at 529 Market street, announced that it soon expected to dispose of the property with its three buildings housing the equipment and machinery including three cylinder machines. The Mann Company formerly manufactured the famous Shen King Copying Papers, for many years one of the leading brands of the papers on the market for this class of work. All the equipment has been modernized as well as the buildings within recent times. The mills have been in existence for more than 50 years.

Raymond & McNutt Stocking Standard Blotters

Although Clyde C. Cobaugh, who formerly conducted the blotting paper department of the Raymond & McNutt Company, has servered his relations with that concern to become a partner with the Satterthwaite-Cobaugh Paper Company, and has also transferred the Standard Blotters to the latter firm, his former employers will continue to stock the blottings with their regular lines. The Blotting Paper Division of the Raymond & McNutt Company was formerly run as a separate unit with Manager Cobaugh in charge of distribution. Now the Standard Blotters, in a complete assortment of colors and sizes will be carried with the regular stocks and at headquarters in the Sheridan Building to be distributed directly by the firm. There has been added also the Waterfall Bonds and Ledgers manufactured by the Poland Paper Company.

P. H. Glatfelter Adds Mimeograph Papers

Among the recently introduced products of the P. H. Glatfelter Mills of Spring Grove, Pa., that have been annexed to the lines of papers distributed among the dealers in this city are mimeograph papers. The Glatfelter Company offered the new stocks of its latest product to the trade a short time ago as a medium priced commodity and has been successfully stocking it among the leading fine paper houses locally.

Keickhefers Tour Europe and Hawaii

President J. W. Keickhefer of the Keickhefer Container Company, of Milwaukee, Wis., and his son Vice President Herbert Keickhefer, manager of the Delair, N. J. mill of that firm, have been journeying in foreign countries. President Keickhefer stopped over at the local mill enroute to New York where he took passage for a six weeks' tour of Europe, to attend the wedding of his son Herbert and Miss Frances Guild, prominent socially in

(*Continued on page 42*)

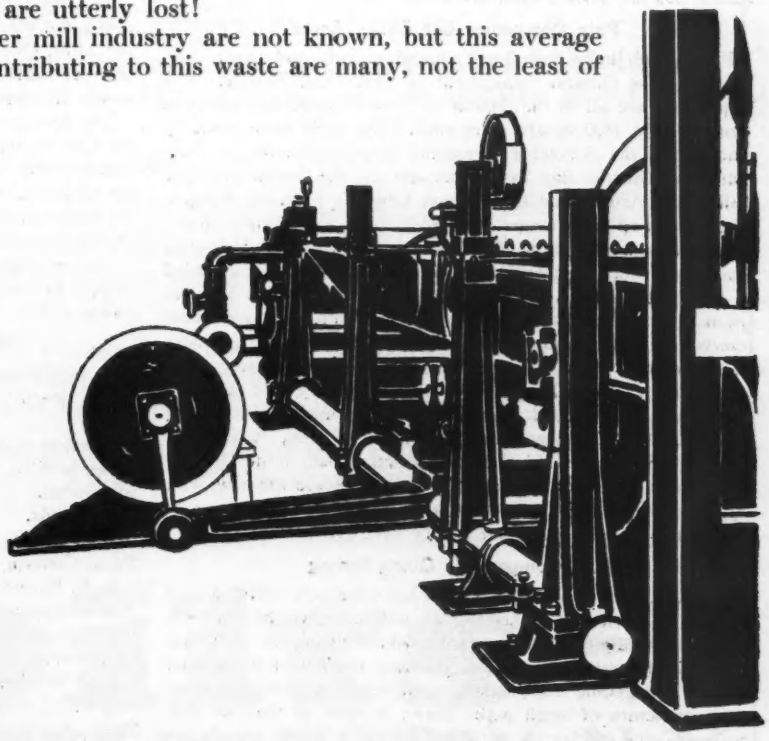
Is 1/5 of your payroll paid out for idle time

SECRETARY HOOVER'S federal commission investigating industrial losses finds that one-fifth of the country's payroll is utterly wasted. Think of the colossal amount of wages paid out that are utterly lost!

What the figures are for the paper mill industry are not known, but this average cannot be far wrong. The causes contributing to this waste are many, not the least of which is old and obsolete equipment.

One of the significant and outstanding revelations to the paper industry's progress is the increased efficiency experienced in those mills where the NEW BELOIT FOURDRINIER is operating. Its contribution in the elimination of waste, cutting down of unproductive hours and the utilization of man power to the highest degree will bear the investigation of every mill owner.

Get the facts. Write for Bulletin No. 9.



The NEW BELOIT FOURDRINIER

Beloit Iron Works **Beloit, Wis., U. S. A.**

Since 1858 Builders of Paper, Board Mill and Container Plant Machinery

Toronto's Paper Demand Constantly Increasing

Improved Conditions Generally Are Having a Favorable Reaction on the Paper Market—New Prices on Paper Board—Large Pulpwood Limits Allotted to Pulp and Paper Concerns by Ontario Department of Lands and Forests

[FROM OUR REGULAR CORRESPONDENT]

TORONTO, Ont., November 2, 1925.—Business in the paper trade is constantly getting better and the trade is now quite hopeful of a much improved turnover. The altering conditions in manufacturing and commercial lines are having favorable effect on the paper merchants' activities, with the result that the mills are well employed. Business should now steady down somewhat owing to the federal elections being over and the attendant excitement giving way to attention to the tasks nearest at hand. Manufacturing stationers are quite busy and paper box plants have taken on considerable activity, which is usual at this season of the year. This has created a greater demand for board.

The following prices have been put into effect by the board manufacturers: plain chip, $60; plain straw, $60; screening board, $65; white vate lined chip, $70; filled wood board, $85; No. 1 folding pulp, $95; No. 1 white patent coated, news back, $105. No. 1 white patent coated, news centre, manila back $110.00; No. 1 white patent coated, solid manila, $115.00; No. 2 white patent coated, news back $95.00. These prices are in carload lots delivered at Toronto.

There have been some changes of late in poster paper and the trend of values has been upward. Broken reams—all colors—now sell to printers at $13.75 per cwt; reams $11.95; 500 lbs. $11.15; tons $10.25. Dark Blues are quoted at $14.50 per cwt; reams $12.70; 500 lbs, $11.90; tons, $11.00.

Pulp Companies Get Large Areas

Pulp wood limits have been allotted to pulp and paper companies by the Ontario Department of Lands and Forests. The concessions are all in the district of Lake Nipigon and comprise from 1200 to 1800 square miles each. The sales were made by tender and the following companies were successful in their bids—The Thunder Bay Paper Company and the Provincial Paper Mills, Port Arthur, and the Nipigon Fibre Corporation, Nipigon. The price in all cases ranges from $2.00 to $2.25 for pulpwood per cord and from $6.00 to $8.00 per thousand feet for the jack-pine. Two other tenders in connection with these have yet to be awarded as soon as the details have been worked out. Two new features are incorporated in connection with the allotments. The government reserves the right to sell the standing jack-pine to other operators on the areas let to each one of the pulp and paper companies. The other feature is that the government leases specify that the pulpwood must be converted into newsprint in Canada before being exported. The sale according to Hon. Mr. Lyons, Minister of Lands and Forests will bring the production of pulp in the Thunder Bay district up to 840 tons daily and will increase the newsprint output to about 1,500 tons eventually. The total investment in additional plant and equipment will be over $41,000,000.

Burt Company Is Going Strong

The F. N. Burt Company, Toronto, has done very well this year and it is believed that profits in 1925 will be higher than in 1924. With a practically unlimited operating field, the company is sharing in the steady growth in general business, notably in the United States. It is getting exceptionally good results at this time from the manufacture of small paper boxes, in spite of the fact that cheaper grades of cigarets are being packed in paper parcels instead of boxes, as formerly.

F. N. Burt Company has a process of manufacture of small boxes patented which enables it to produce them at a lower cost than any other process, and it turns them out by the millions.

Expansion possibilities of the company are good. It has not only the growing United States and Canadian markets, but possibilities for important development in foreign fields. The company could establish plants in Europe and successfully meet competition there. The company's earnings record has been consistently high and its capitalization is conservative, but perhaps its prospects for expansion are the most attractive aspect of the security.

Riordons Were Pioneers in Pulp

George Carruthers, president of the Interlake Tissue Mills, Limited, Toronto, and former president of the Canadian Paper Trade Association, has received a letter from Carl Riordon, of Montreal, in which he states that to the best recollection of his father, Charles Riordan, the first ground wood pulp in Canada was made by Buntin at East Angus, Que., a year or two before the Riordons manufactured any. The latter started making it at Merritton, Ont., somewhere about 1867 and 1869 with what was called an "Ames" grinder. The mill was located at Lock 16 and turned out about three tons a day. Shortly after starting this mill the Riordons put in a second mill at Lock 18, using Voigt grinders. Carl Riordon says that he thinks the first grinders they put in had an iron or steel rotor—not a stone—and he believes that the Riordons were the first to make and use ground wood pulp fairly extensively in Canada.

Taking Over Mr. Kilgour's Interest

For some time past there have been rumors that new interests would assume control of the Canada Paper Company of Windsor Mills, Que., which have offices in Montreal and Toronto, and also the business of Kilgour Brothers, Limited, Toronto, manufacturers of paper bags, boxes, etc.

The late Joseph Kilgour, of Toronto, who was president of both the Canada Paper Company and Kilgour Brothers, stipulated in his will that the interests were to be taken over by others owing to his having no heir. This has been carried out and C. R. Hosmer, of Montreal, is president of the Canada Paper Company and W. H. Langlois, of Toronto, head of Kilgour Brothers. Both concerns are widely known but the details of the change, which was largely an internal one, have not been definitely announced. The policy of the companies will remain unchanged.

Notes and Jottings of the Industry

D. F. Robertson, of Montreal, general manager of the Canadian Paper Board Company, was in Toronto recently calling upon the trade.

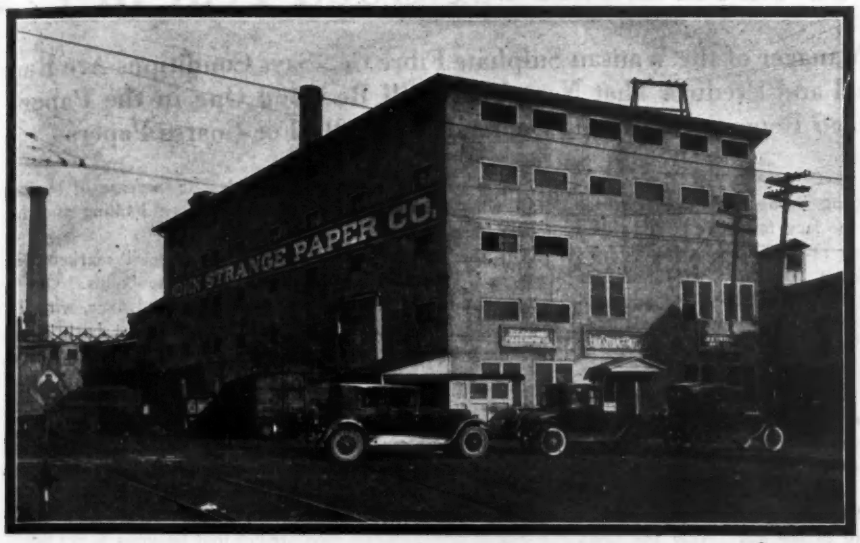
Freeman Ogle, a popular member of the sales staff of Paper Sales, Limited, was married in Toronto recently to Miss Margaret McConnell. Mr. Ogle and bride are spending their honeymoon in Bermuda.

John Cowie, of Bangor, Maine, representing the Orono Pulp and Paper Company, was a caller upon the trade in Toronto recently.

D. G. Porter, for the past six years secretary of the Rudd Paper Box Company, Toronto, has resigned and taken an interest in the Regal Paper Box Co., John st., Toronto, with which he is now associated.

I. H. Weldon, president of the Provincial Paper Mills, Toronto, and N. L. Martin, of Toronto, secretary of the Canadian Paper Trade Association, are enjoying a moose-hunting expedition along with a number of friends at Hartley Bay, in the French River district.

E. A. Schofield, of the Schofield Paper Company, St. John, N. B., who was recently elected president of the Canadian Paper Trade Association, was in Toronto lately calling upon the trade.



JOHN STRANGE
PAPER CO.,
Menasha

WISCONSIN

A land of rare delight for the tourist and sportsman, a state of distressing concern to the citizen and statesman, but withal a field of tremendous growth and activity in the manufacture of paper.

Wisconsin uses Dilts beating engines. Her paper more than holds its own in the keen competition of the big markets, and its quality is unquestioned.

"Her paper is made in her beaters."

The Dilts approved NEW TYPE Beating Engines, first built in the year 1924 are a great improvement over beaters of the standard Hollander type.

These approved NEW TYPE are fast-circulating beaters, and **the power consumption is no greater** than on ordinary beaters. They beat and mix rapidly, dump quickly, and handle heavy "furnish" of stock.

Write for information and prices and list of users. You will be interested in the Dilts approved NEW TYPE Beating Engines for your own mill.

Dilts

MACHINE WORKS, Inc. FULTON, N.Y.

EXPORT OFFICE ~15 PARK ROW~ NEW YORK CITY

Chicago Paper Men Look for Good Year in 1926

George K. Gibson, Sales Manager of the Wausau Sulphate Fibre Co., Says Conditions Are Rapidly Returning to Normal and Predicts That Next Year Will Be Good One in the Paper Business—Chicago Reports Improving Demand Especially For Coarse Papers

[FROM OUR REGULAR CORRESPONDENT]

CHICAGO, October 31, 1925.—Sitting in his office twenty-three stories above Chicago, situated in the lacy fairy-like tower which was recently finished by the Chicago *Tribune*, and having a bird's eye view of the lower basin of Lake Michigan, Sales Manager George K. Gibson of the Wausau Sulphate Fibre Company propounded a bird's eye view of the whole paper trade in Chicago for a representative of the PAPER TRADE JOURNAL, particularly, of course, in his own line of Mosinee kraft papers. Mr. Gibson predicted a good year for business in 1926. He said that the effects of the war on all business were all but worn off, and the paper trade particularly, which depends on other businesses for its success, is following in the footsteps of the country's business. The war was followed with a general depression and low prices. In 1920 prices reacted to abnormal. In that year there was no level, no standard. Things were way up in the sky. Now the "ship of business" is coming into the sunshine and comparative calm of normality, after a stormy period during and following the World War.

These offices of Mr. Gibson's are three in a suite, facing Lake Michigan on the 23rd story of the Tribune Tower. The Tribune Tower is on the extreme end of Chicago's skyline, and is closer to the lake than any skyscraper in the skyline. From his offices Mr. Gibson can sit at his desk and see the whole lower basin of Lake Michigan, can indeed all but look over to the State of Michigan. Mr. Gibson moved into these offices during the first months of this year, from the Conway building, which contains a good many paper offices.

No Price Changes

There were no changes of market prices this week in Chicago, although some companies made slight changes in their stocks, particularly the fine paper companies. The stability of prices, in fact, is being pointed to by the paper men here as one of the criterions of business. There is not much more to say, after prices have been quoted. Statistics do not lie, except when they are collected unintelligently. Prices are the gauge of business. The stability of Chicago prices, therefore, is a leading sign that the paper market of Chicago is also stable.

The surrounding conditions in the general paper trade also seem to be better than they ever have before. Labor conditions, general business conditions outside of the paper trade, etc., are all contributing to making the paper trade here what it is, and this year the spirit of optimism has a firmer basis because of the outside influences and economic factors which contribute to it. In the past the conditions at the mills have always been a hazard in the paper trade, but paper men now seem to think that is fading permanently into the past.

Fine Paper Market Unchanged

Nothing extremely hopeful can be said for the fine paper division. The market is stable, which is its redeeming point. When asked what happened to the fall business, one prominent paper man said "There ain't none." As a rule October and March are the best months of the year. This year there is no appreciable rise in sales or in profits over September, although there are some individual companies which show slight increases. In fine papers, the trade is better than last year, but during this month of October it has not shown the increase for the fall business in proportion to the business during the rest of the year, as has been the usual thing in past years. In other words, the increase of business for fall which the fine paper men have been looking for, has not come here as yet.

On the other hand, there are some good markets for fine papers. There is a fine market for cheap bonds. One coated paper company is tied up for six weeks in advance, with its mills running twenty-four hours a day. But this last is the exception. The officials of the company attribute this success to the quality of its paper.

Coarse Paper Division Active

The coarse paper division, conversely is humming busily and with great vigor. The fall rush has come to it. All the makers of kraft papers in the west are sold out or can dispose of their goods. The mills are full of business. Kraft pulp is steadily rising in price. Kraft men predict that business is not only good, but will continue to be good for another year, with the optimistic outlook of increasing prices all the time. Coupled with these facts about kraft, is the knowledge that there are more uses for it than ever before, notable extensions being made in the way of cement bags. Kraft is also used for boxboards, panel boards, and, of course, in sacks and bags of all kinds. These uses of kraft paper and pulp tend to eliminate the over production which has been one of the dangers of this branch of the business, because of the advent of the mills through the South. The industry these southern mills have shown has necessitated more outlets for the surplus kraft.

Paper Stock Market Unchanged

There is no new note in the paper stock trade in Chicago this week. Prices remain at the same level. Roofing stock is being hustled on the market, and there is slightly more being sold, possibly because of the coming winter. But even that is out of season, and is no standard for the general trade in old papers.

With these general notes there are some particular items both good and bad. One of the good items of news is the fact that printers in general are recovering from the slump of the last few months, and are consequently using more paper. Several paper companies have not noticed this in the returns, while others have. Some paper men have observed it personally, seeing machines in printing shops in operation which have stood idle for three months. The reason for this is twofold. The fall and its usual good business is coming on, and more printing is bound to be done. Secondly, it is said that the large direct by mail advertisers are learning ways and means of taking advantage of every available ounce of postage under the new postal rates, and so are doing more business than the period immediately following the inception of the new rates.

Success in Envelopes

J. A. Johnston, Vice President of the American Envelope company of Chicago, says in a letter to the trade that the secret of success in envelopes is the attention they arrest and the mental state they create in the reader's mind. Included with the letter, giving pointers to envelope users, are several samples of the envelopes of the company, including several colors and grades, printed with the names of the companies that use them. The letter goes on to say that 90 per cent of envelope users give less thought to the envelope they use than to any other feature of their direct ad-

(*Continued on page 36*)

A New Trademark

An Old Concern

DOWNINGTOWN MANUFACTURING COMPANY
Paper and Pulp Mill Machinery
EAST DOWNINGTOWN, PA., U. S. A.

Obituary

Joseph Earl Hill

APPLETON, Wis., November 3, 1925.—Joseph Earl Hill, 67 years old, former mayor of Menasha, Wis., superintendent of the Gilbert Paper Company of that city, and prominent in state Masonic circles, died of acute indigestion the evening of Saturday, October 24, at his home, 342 Naymut street.

He was taken ill the previous afternoon while about his duties at the paper mill with which he had been connected for more than a quarter of a century.

Mr. Hill had an eventful career. He was born in Trenton, N. J., and in early life enlisted in Troop I, Seventh Cavalry, U.S.A., and took an active part in the Custer campaign in South Dakota. After leaving the army he entered the employment of the Omaha railroad in the capacity of engineer, a position he held for several years.

From railroading he turned his attention to lumbering and for a number of years held a responsible position with the Valley Lumber Company, of Eau Claire, Wis., where he made his headquarters.

Prior to coming to Menasha in 1898, he served the Standard Oil Company as traveling engineer for several years. During the 27 years Mr. Hill had made his residence in Menasha, he was connected with the Gilbert Paper Company first in one capacity and then another, working himself up to director of the company and superintendent of maintenance at the time of his death.

Mr. Hill was generally known throughout the state because of his connections with the Masonic order. At the time of his death he was ambassador of Tripoli Temple, Milwaukee, and president of the Menasha Shrine. He was past master of several other lodges. He served Menasha as mayor in 1910 and 1911. He is survived by his widow, one daughter, Mrs. S. R. Johnson, Chicago; three sons, Richard, Earl and Gilbert, Menasha, and two grandsons. Funeral services were held October 27 in Menasha.

W. R. Smith Heads Paper Makers Union

[FROM OUR REGULAR CORRESPONDENT]

ALBANY, N. Y., November 2.—William R. Smith, of Kalamazoo, Mich., has been elected president of the International Brotherhood of Papermakers, defeating Matthew H. Parker, present head of the union, by approximately 200 votes. Announcement of Mr. Smith's election was made by the board of canvassers upon completing the tabulating of votes of locals in this country and Canada cast between October 1 and 15. The election of Mr. Smith was entirely unexpected and the result indicates that the solid vote of the Carey, or Insurgent faction, was cast for the Kalamazoo man. The new president will assume office January 1, the presidency paying a salary of $5,000 a year.

Archie Hook, of Chicago, was without opposition and was re-elected as treasurer. Matthew J. Burns running against W. W. Farr, of Mechanic Falls, Me., and Clinton Cagnon, of Livermore Falls, Me., was re-elected to the office of secretary by about 600 majority.

Frank P. Barry, of Ballston, Spa., first vice president of the brotherhood, was re-elected to that office polling the highest number of votes cast for any candidate. Arthur Huggins, of Holyoke, Mass., showed unexpected strength in the voting and was advanced from fourth vice president to second vice president, he having polled the second largest number of votes of the vice presidential candidates, George Schneider, of Appleton, Wis., was elected third vice president and Simeon Weir, of International Falls, Minn., was elected fourth vice president, Arthur D'Aoust, of Ottawa, and A. F. McLeod, of Espanola, Ont., were elected vice presidents of the Canadian group, defeating Harry Ernest, of Hull, Alfred Judd of Iroquois Falls, and Grady Pickett, of Fort William, Ont.

The complete list of the newly elected officers of the Brotherhood, who will take office January 1, follows:

President, William R. Smith, of Kalamazoo, Mich.;

Vice president (American section) Frank P. Barry, of Ballston Spa., Arthur Huggins, of Holyoke, Mass.; George Schneider, of Appleton, Wisc.; and Simeon Weir, of International Falls, Minn..;

Vice presidents (Canadian Section), Arthur D'Aoust, of Ottawa, and A. F. McLeod, of Espanola, Ont.;

Secretary, Matthew J. Burns, of Albany;

Auditor, David S. Larner, of Norwood;

Delegates to the American Federation of Labor, William R. Smith and Frank P. Barry;

Delegate to the Dominion Trade Congress, A. F. McLoed;

Mr. Smith, who will assume the presidency of the Papermakers' Union January 1, is 42 years of age and began work as a papermaker 25 years ago at Brownville, N. Y. He was employed in the mills at Beferiet for four years and was connected, also, with other mills in the Watertown section. In 1909 Mr. Smith was sent to England by the Bagley & Sewell Company of Watertown, and remained there for fourteen months. Upon his return from England Mr. Smith became associated with the International Paper Company's plant in Niagara Falls and in 1911 he came to Albany to act as secretary of the Brotherhood.

In making his campaign for the presidency Mr. Smith advocated a number of radical changes in the constitution of the Brotherhood. He advocated a reorganization of the union, limiting membership to skilled papermakers only. Whether he attempts to bring this about remains to be seen. Some members of the Brotherhood claim that such a move will bar nearly fifty per cent of the present members and will result in the disruption of the Papermakers' Union.

LOOK FOR GOOD YEAR

(*Continued from page 34*)

vertising or correspondence envelopes, often resulting in real financial loss. Then this question is asked—Why not give the same thought and attention to your envelopes that you do to your catalogues, circulars, letterheads, and other publicity features? The letter closes with a good clincher—"Won't you let us send a salesman—Phone — — — or suggestions by mail to help you get the greatest results from the envelopes you use?"

General News of the Trade

E. V. Fox, sales manager of the Tomahawk Kraft Paper company, which has opened offices in the Conway Building, reported favorably on kraft business, giving as a reason the general demand in business for the coming holidays. But, he said, kraft business has been good for the whole year, and will be for another year to come, which is the opinion of the entire kraft trade in Chicago.

Horace Gimlin, who has been connected with such Chicago paper concerns as Brodner-Smith and the Chicago Paper Company, and who was for a time Vice President of the Dwight Brothers Paper Company, is now Vice President of the Hawthorn Paper Company, Kalamazoo, Mich. Mr. Gimlin has just returned from the Pacific coast, where he was interested in a paper company venture of his own.

The Ontanaga Fibre Company of Ontanaga, Mich., has established a sales office in the Conway building, from which it will distribute its products in Chicago.

Noble Gillet of the Chicago Paper Company and several other Chicago Paper and advertising men attended the Direct-By-Mail Convention at Boston, Wednesday, Thursday and Friday of this week.

Automatic Measurement--
The Source of Greater Profits in Industry

THE saving of materials by automatic measurement is today's outstanding source of greater profit in industry.

Of the three principal cost elements—labor, expense, and materials—labor and expense are controlled by time clocks, time studies, periodic comparative statements, and statistical reports prepared by accounting departments and auditors.

But there still remain concealed costly shortages which are customarily charged off in the annual inventory adjustment. And this mysterious difference between profits expected and profits realized is frequently due to errors in the measurement of materials.

It is with a full understanding of the importance of the measurement of materials, that Toledo Scales are designed, made, and sold.

They are adaptable to any measurement problem; are simply designed and ruggedly built, and afford automatic protection against human and mechanical error—the operator merely puts on the load and reads the exact weight or count on a great dial from 5 to 7 feet in circumference.

To insure continuously accurate operation, service stations are maintained in 106 cities in North America.

To modernize YOUR measurement operations the first step is an investigation by Toledo Scale engineers. This costs you nothing; it may save you much.

Toledo Scales are used for automatic weighing, computing, counting, mailing, checking packing, shipping and special purposes in stores, offices, shipping room, factories, mills and warehouses. Scales to weigh everything from an ounce of spice to thirty tons of steel.

Toledo Scale Company, Toledo, Ohio
Canadian Toledo Scale Co., Limited Windsor, Ont.
Manufacturers of Automatic Scales for every purpose
Service Stations in 106 Cities in the United States and Canada

TOLEDO SCALES

NO SPRINGS HONEST WEIGHT

The Pioneer Paper Mill of California

An interesting story of the Pioneer Paper Mill of California by E. H. Holden, custodian of records was printed recently in the *Northwestern Pacific Headlight*. Mr. Holden says he is indebted to Samuel J. Taylor, of Oakland, Cal., son of the late Samuel Penfield Taylor, who established the mill for assistance in preparing the story. Mr. Holden's article in part follows:

Headed for California in 1849

Samuel Penfield Taylor, builder of the Pioneer Paper Mill, was born at Saugerties, on the Hudson, in New York State, in October, 1827. He was the youngest of a large family and passed an uneventful life until the gold fever of 1849 headed him for California. He, with a number of other young and adventurous spirits, purchased and outfitted an old schooner in Boston, Massachusetts. They left Boston Harbor early in the summer of 1849, sailed around Cape Horn, stopping at ports on both sides of North and South America, to make necessary repairs to the vessel, and after a trip of nearly ten months arrived at Yerba Buena or San Francisco, in the spring of 1850, landing where Clay and Montgomery Streets now intersect, sound in mind and body, and none the worse for their experience. Many times in later years, he had been heard to remark "that the payment of twenty dollars for the privilege of working one's way 'round Cape Horn, before the mast, was not what it was cracked up to be."

On reaching San Francisco, most of his shipmates immediately struck out for the "diggings." He remained in the city for a time to get his bearings, and not caring to be idle, picked up a hogshead of eggs found floating in the bay, with which and a small stock of bacon, using the hogshead for a counter, he opened up an out-door eating place, which for a time proved profitable.

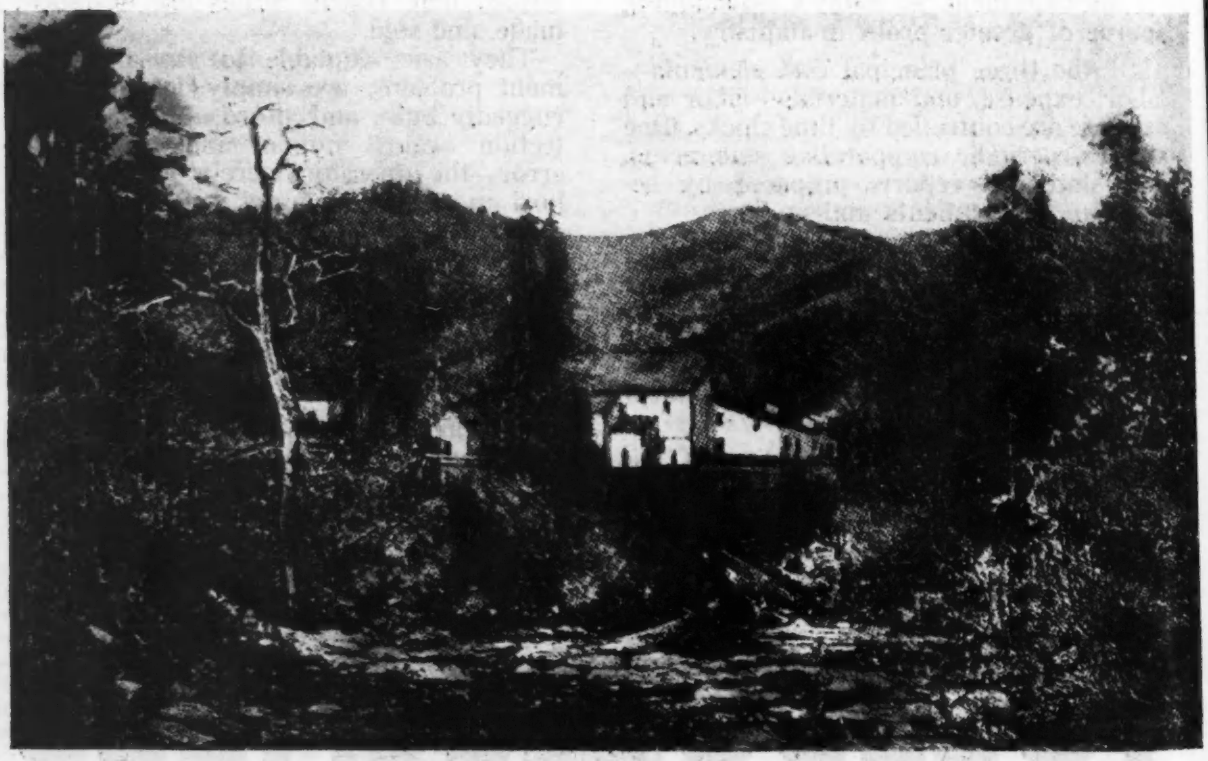
First Start From Gold Dust

Later he also went to the mines, and in August 1852, shipped to Curtis, Perry and Ward, bankers in San Francisco, 6173 dwts. (pennyweights) of gold dust, which netted him $5,691.99 and gave him his start in the far west.

Early in the year of 1853, with Isaac Cook and Henry Wetherbee, he opened a lumber yard on California Street near Drumm, in San Francisco, and looking over the country for a source of supply for the yard, went over into Marin County, up through the Mill Valley, over Tamalpais, down the Lagunitas and on down the Daniels Creek, afterwards the Paper Mill Creek, into the heart of the virgin forest, which abounded in a great variety of tree growth, including oak, laurel, madrone, willow, fir and other woods thickly covering the hillsides up from the stream, but the giant redwoods and pines took his eye.

Realizing the possibilities of the location, the water power, standing timber and other attractive features, he, a short time afterwards, purchased 100 acres of the old Garcia Grant (this Grant consisted of thousands of acres comprising the Bolinas Ridge, all of Point Reyes, in fact everything west of the Paper Mill Creek to the Pacific Ocean), and his mind turning to the paper mill near Catskill, New York, in which his people had been interested, he realized that this location would be ideal for a paper mill. Notwithstanding the almost utter inaccessibility of the site, at the time, other than by horseback and cutting of trails through the brush, the idea, a short time later, became a reality in the building of the "Pioneer Paper Mill of California." This was the first paper-factory west of the Mississippi and one of the first on this side of the Allegheny Mountains.

The first necessary step in the carrying out of this enterprise was the construction of a "saw-pit" at the foot of "Bear Gulch," near the chosen mill site, where most of the outside lumber for the mill dwelling and boarding house was whipsawed from redwood trees felled near the pit. The mill timbers were felled, hewn, squared and framed in the clearing for the mill site and were



How the Pioneer Paper Mill of California Now Looks

GUESSWORK

Eliminate It With the

Valley Size Tester

The Valley Size Tester

1. Is accurate and easy to operate.
2. Helps to keep size constant from run to run.
3. Helps to keep size constant during a run.
4. Saves in both size and alum.
5. For use in paper and board mills.

Write for Booklet

Advances in the printing trade have put problems up to the paper maker that were not known several years back. One of the greatest difficulties encountered by printers is met with in the use of sized paper because its degree of sizing has always been very difficult to measure. Now the Valley Size Tester gives a measure of the sizing quality of your paper. Imagination and guesswork are no longer depended upon to know results. Definite numbers that form a working basis for all present and future work supersede unreliable judgment of your workmen. The use of accurate readings insures perfect control over sizing thereby maintaining high standards of quality and uniformity that eliminate many of the printer difficulties.

VALLEY IRON WORKS CO.

APPLETON, WISCONSIN

New York Office: 350 Madison Ave.

put together with wooden pins. A log dam, a mile up the creek, was started for the water power.

Went Back East for Machinery

With these activities well under way, Mr. Taylor went "back" East, early in the summer of 1854, to obtain the machinery, millwrights and necessary supplies for the project. He traveled by way of the Isthmus of Panama. After purchasing the machinery of Smith, Winchester & Co., at South Windham, Connecticut, and starting it on its way, he went to Fall River, Massachusetts, where, in the spring of 1855 he married a young school teacher of that place, named Sarah Washington Irving, and brought her with him to California by the Nicaraguan Route. As the years went by, a family of seven sons and one daughter blessed the union, all born in San Francisco, except Edwin, who was a native of Marin County. W. P. Taylor, Jr., a grandson, was also born at Taylorville.

Upon the arrival of the machinery at San Francisco, by way of the Isthmus of Panama, it was shipped by schooner to Bolinas, from whence it was taken by ox team to Woodville, called Dogtown, and thence sledded by ox power along the Bolinas Ridge for six miles, then down a "hog back" to its destination, where it was finally set up and, in the meantime, the raw material having been shipped over the same route as the machinery, the flume completed from the dam, nearly a mile away, the water was turned onto two large overshot wheels, putting into operation, in November 1856, the "Pioneer Paper Mill" of the West.

First Product Was Ray News Print

The product of the mill in its early days was news paper manufactured from rags picked up all along the coast, a large quantity being gathered by Chinese rag pickers, from the streets and dump piles in San Francisco,—some of my older readers may remember "John" with baskets hanging from a bamboo pole over his shoulder, his stick with the two hooked prongs, with which he deftly picked up the rags, dropping them into either basket and later selling them to the junk man who baled them for the paper mill.

The site of the mill was not chosen for its water power alone. As most everyone knows, a large supply of clear, pure water is an absolute necessity in the manufacture of paper; in fact, it is all water until it reaches the dryers.

Product Sold to San Francisco Dailies

During the first years of operation, as said before, news paper was the main product and was readily disposed of to the "Dailies" of San Francisco, and the transportation problem, in keeping the papers supplied, before the days of the railroad, was quite as important as was the getting of the machinery and raw materials to the mill. Many a time the Lookout, at the top of Telegraph Hill, was besieged for information by the *Bulletin*, *Alta* or *Call*, as to "whether the sloop from Bolinas had yet hove in sight," as it was to Bolinas the paper from the mill was taken for shipment, first by pack-train and sled and later by wagon. Later, when Mr. Taylor had built a wagon road up through the creek canyon to the Lagunitas, the product was taken to Ross' Landing, on San Anselmo Creek, near where Kentfield now stands. Still later, when the wagon road was completed in the other direction to the town of Olema, and until the railroad was running in 1875, freight both ways, raw materials and supplies, as well as the finished product, were shipped by way of Tomales Bay, first by schooner and then by Goodall, Perkins' steamers, which sailed part way into the bay, then by "Lighters" delivered to and taken from a warehouse on the creek, opposite the present Point Reyes Station. Hauling between there and the mill was by horse, mule and ox team.

When the Marin Water Company was started, in the early seventies, quite a quantity of water was diverted from the Lagunitas and Paper Mill Creeks into the Water Company's reservoirs, compelling the addition of a steam engine at the paper mill for power. W. T. Coleman, one of the originators of the Water Company, paid S. P. Taylor $10,000.00 for a part of the latter's Riparian Rights in the premises. Mr. Taylor realized later that while the $10,000.00 looked very large at the time, no amount of money could ever make good the loss to the paper mill, caused by the diversion of the water.

Prosperous from Beginning

The little old thirty-six inch, one cylinder mill had, by this time, to a great extent, outgrown the demands made upon it. Although running full time, making all kinds of paper, principally wrapping, from all kinds of material, fruit-wraps, for the first shipment of California fruit, were made at this mill.

The undertaking had been prosperous from its inception, notwithstanding the added cost of steam power necessitated by the diversion of the water from the Lagunitas, high prices during the Civil War being quite a factor in its favor.

The demand for greater output was finally acceded to in 1884 by the building of a new, and at that time, modern plant, near the original mill, at a cost of $165,000.00, with machinery from Smith, Winchester & Co., Tanner and others; (none of the transportation problems of thirty years back had to be considered at this time), it was unloaded from the cars alongside the site and installed by competent millwrights and mechanics under the superintendence of Will P. Taylor, the only one of the Taylor boys who followed the manufacture of paper as a trade, in which he became expert, and, only a few years ago, designed the machinery for a large paper mill which he erected in China.

Operated by Water and Steam

This new mill, with its 72 inch Fourdrinier machine, plenty of beating engines and Jordan refiner, was operated by water and steam power, a 26½" Lefell Turbine with an 18" x 42" Corliss engine took care of the pulp engines, beaters, etc., a New York Safety upright, the paper machine, a twenty horse power horizontal for the Super-Calenders—which were added later—and a small upright for the repair shop which at night operated the electric light plant, installed in the early nineties.

All Kinds of Paper Manufactured

All kinds of paper were manufactured. Book, manila, news, wrapping, ballot paper for the State of California, fruit wraps and bag paper were some of the products for which jute was imported from Calcutta, wood pulp from Norway, and rags and paper shavings from San Francisco and elsewhere being used; the waste from the Jute Mill at San Quentin also found its way to this mill.

In 1893, the Super-Calenders, above mentioned, were added to the plant at a cost of approximately $10,000.00. Hardly had they been installed when along came the financial panic of that year, one of those useless, unnecessary crises which, after they have passed, are looked back upon with an unanswered WHY?, and from which this and numbers of other industries, not alone in California, never recovered. A clean-up was made with the materials and supplies on hand, and the mill, after lying idle for several years, was mysteriously burned to the ground, and the closing chapter in the history of the manufacture of paper in Marin County was written.

Hardly a thing remains to remind one of the once living, prosperous, little manufacturing settlement, Taylorville, located on Paper Mill Creek, where, during its busy years, many men and women earned a livelihood, raised families and lived contented lives. Trains, at the present time, stop there only on signal, which is not often, and the station which brought to the railroad many thousands of dollars for freight and passenger service every year, does not now even attract the casual passenger riding through. "Sic transit gloria mundi."

BLEACHED and UNBLEACHED
SULPHITES
KRAFT PULPS
GROUND WOOD
NORRONA
PULP STONES

PERKINS-GOODWIN CO.
33 WEST 42nd STREET
NEW YORK

PAPER
PRINTING PAPER
of
EVERY DESCRIPTION

Trade Marks Department

CONDUCTED BY NATIONAL TRADE-MARK CO., WASHINGTON, D. C.

The following are trade-mark applications pertinent to the paper field pending in the United States Patent Office, which have been passed for publication and are in line for early registration unless opposition is filed promptly. For further information address National Trade Mark Company, Barrister Bldg., Washington, D. C., trade-mark specialists. As an additional service feature to its readers, PAPER TRADE JOURNAL gladly offers to them an advance search free of charge on any mark they may contemplate adopting or registering.

DIRECT SALES BOND No. 215,958. The Appleton Coated Paper Company, Appleton, Wis. For coated one and coated two sides bond paper in white and colors.

PRESERVO No. 218,812. Hawley Pulp and Paper Company, Oregon City, Oreg. For oil treated wraps for fruit adapted to preserve the latter.

PHILADELPHIA DEMAND FAIR

(*Continued from page 30*)

Merchantville, N. J. The younger couple now are honeymooning in Honolulu and other Hawaiian points, expecting to return by November 1.

Union Bag & Paper Corp. Under C. E. Hanson

With the transfer of Harold Hancock, to the New York Offices of the Union Bag & Paper Corporation, the Philadelphia Offices have been reorganized. The recently appointed successor to Manager Hancock is C. E. Hanson, who is general sales manager while assistant manager A. J. Ericson has been succeeded by J. R. Gibson, who in turn has been replaced as Philadelphia sales representative by J. J. Berrian. Assistant Manager Ericson has been assigned to the New York offices.

Welsh Paper Co. Adds Imported Papers

Among the recent additions to the box makers papers carried by the Welsh Paper Company, 19 S. 7th street, are several new assortments of imported papers from English, French and German mills. The firm is now preparing for its 1926 lines of these new fancy grades of box makers specialties.

Takes Over Scott Offices in Buffalo

William Greenwood, formerly of the Philadelphia offices of the Scott Paper Company, of Chester, Pa., has been transferred to the Buffalo office of the Company and is the youngest manager connected with that tissue and towel manufacturing firm. He has within recent years been associated with the Rochester office as manager. With his new duties he covers all northwestern Pennsylvania as well as the Buffalo territory. He is a brother of Mechanical Superintendent Greenwood of the Scott Mills.

Import German Parchments

Among the Philadelphia dealers who recently have added imported German Vegetable Parchments and glassines are the Whiting Patterson Company, the Franklin Paper Company and S. S. Garrett. These distributors have arranged for the importation of these products from a German mill at Frankfort-on-Maine by way of Rotterdam.

A. M. Collins Donates Relics to U. of P.

Alfred M. Collins, big game hunter and head of the A. M. Collins Company, has presented the University of Pennsylvania Museum his entire collection of ethnological objects gathered last year during his expedition into Central Africa. The collection is one of the finest of Central African native life in existence, as Mr. Collins was the first white man to reach several of the most remote sections. The expedition was undertaken two years ago for the purpose of hunting gorillas in darkest Africa and at the same time he traded with the natives for the purchase of priceless objects all on display at the Museum. They include articles secured from the Magulus, Mabudu, Barundi and the Ruanda tribes, such as shields, knives, daggers, spears, firemaking kits, carved work, baskets, household utensils, ornaments, horns, native musical instruments and other rare finds.

Wilcox, Walter, Furlong Expand Lines

With the addition of Peninsula Covers the Wilcox, Walter, Furlong Company, 17 S. 6th street, has extended its already large assortment of covers papers and is making a drive for the exploitation of its latest product in this grade through issuance of a handsome broadside including most of the Peninsula Paper Company's Covers with the new Publicity brand topping the list. "We Bring to Philadelphia Something Entirely New for Book Publishers" is the title of a booklet now being circulated by the firm announcing the marketing of Exceptional Bulking Papers and containing an announcement of the "New Edition Exceptional Bulk Papers" which have been stocked by the fine paper house.

New York Superintendents Meet

[FROM OUR REGULAR CORRESPONDENT]

ALBANY, N. Y., November 2, 1925.—The fall meeting of the Northern New York Division of the American Pulp and Paper Mill Superintendents' Association, held in this city, brought out a large attendance, with all of the important paper manufacturing districts of Northern New York being well represented. The sessions were not of great length and following the reports of officers considerable time was given over to the discussion of trade problems.

White water and the elimination of pitch were the principal subjects discussed. Several papers were read on these subjects and a general discussion followed which was participated in by many of the members.

The meeting went on record as favoring a more extensive policy of reforestation by the national government. Reforestation methods were brought up for consideration by several speakers. The association adopted a resolution urging New York State representatives in congress to support increased appropriations for national reforestation work and maintenance of the Forest Products Laboratory at Madison, Wis. Copies of this resolution will be sent to all representatives in Congress from New York State.

William H. Brydges, of Niagara Falls, was chosen president; Harry Rockwood, of Watertown, first vice president; George K. Waller, of Glens Falls, second vice president; A. T. Wightman, of Watertown, third vice president. Fred J. Rooney was re-elected secretary and treasurer.

Paper Standardization at Helsingfors

WASHINGTON, D. C., November 4.—The desirability and economic advantages of standardization were unanimously conceded at a meeting of various state officials, paper manufacturers, and paper consumers held in Helsingfors. At the same time it was agreed that the transition from the present wide variety of sizes and types to fewer ones should be made gradually, inasmuch as the project will entail changes in machinery and methods involving considerable expenditure of money and time. Committees were appointed to investigate the possibilities of standardization and their reports are expected to be complete by February, 1926, according to a report from Consul J. F. McGurk, Helsingfors.

Crushed To Death by Falling Elevator

[FROM OUR REGULAR CORRESPONDENT]

KALAMAZOO, Mich., November 2, 1925.—Walter Carr, 50, caretaker at the Rex Paper Company's mill was crushed to death Friday morning October 30, when a 2,000 pound elevator fell thirty feet and struck him as he was working in a pit at the foot of the shaft. It was by strange coincidence that the employees of the mill had arranged for a safety meeting Friday evening, the program including an address by a representative of the state safety first campaign.

ECONOMY IN PAPER DYEING

National Croceine Scarlet MOOP

IS one of the most useful dyestuffs for the paper maker, and is recommended for the production of a wide variety of shades, ranging from pinks to deep reds. This dye is as suitable for beater dyeing as for calender staining or dipping.

National Croceine Scarlet MOOP possesses excellent solubility, a marked degree of fastness to light, and low cost, making it one of the most economical dyes for the paper colorer.

National Aniline & Chemical Co., Inc.

40 Rector Street, New York, N. Y.

BOSTON	PHILADELPHIA	SAN FRANCISCO
PROVIDENCE	CHICAGO	MONTREAL
HARTFORD	CHARLOTTE	TORONTO

NATIONAL DYES

CONSTRUCTION NEWS

A Summary of Vital Facts Regarding Construction, Finances and Operation of Paper Mills

Construction News

Milford, N. J.—The Warren Manutacturing Company, 342 Madison avenue, New York, has perfected plans for a new one-story addition to its local paper mill, to be 30 x 110 feet, brick, estimated to cost $37,000. A general contract has been awarded to the H. K. Ferguson Company, Euclid avenue, Cleveland, Ohio. George Bidwell is plant superintendent.

Brokaw, Wis.—The Wausau Paper Mills Company is arranging for the early installation of equipment for its new bleach plant, to include a 1,000 kw. turbo-generator, pumping machinery and auxiliary apparatus. L. A. DeGuere, Wisconsin Rapids, Wis., is engineer, in charge.

Hamilton, Ohio.—The Champion Coated Paper Company has awarded a general contract without competition to the F. K. Vaughn Building Company, Dayton street, Hamilton, for extensions and improvements in its mill on North B street, consisting of a one-story, brick and steel extension for enlarged output, estimated to cost approximately $200,000, including machinery. Pretzinger & Musselman, Reibold Building, Dayton, Ohio, are architects. T. G. Thompson is president.

Los Angeles, Cal.—The Eureka Paper Box Company has plans in progress for the construction of a new two-story brick plant at Tarleton and Twentieth streets, 65 x 120 feet, estimated to cost about $45,000, with equipment. Construction will be carried out by John M. Cooper, Rives-Strong Building, architect, who has prepared the plans.

Otsego, Mich.—Plans have been perfected for a resumption of operations at the local plant of the Wolverine Paper Company, covering both general paper and wax paper production. The first noted will be carried out under the direction of the Allied Paper Mills Company, Kalamazoo, Mich., while wax paper manufacture will be in charge of the MacSim Bar Paper Company, Otsego. Improvements are said to be under consideration.

Cincinnati, Ohio.—The Sabbino Robbins Paper Company, Middletown, Ohio, has filed plans for the erection of a one-story building at 3849 Ludlow avenue, Cincinnati, designed primarily for storage service, for which work will be placed in progress immediately.

North Tonawanda, N. Y. — Officials of the Rand Company, Inc., manufacturer of cards and paper specialties for office service, have formed a subsidiary organization under the name of the Rand-Kardex Bureau, Inc., capitalized at $100,000, to expand operations. It is said that the new company will specialize in the manufacture of certain branches of output heretofore handled by the parent company.

Toledo, Ohio.—The Butler Paper Products Company, 16 Broadway, has awarded a general contract to H. J. Berkebile & Company, 313 Broadway, for the erection of its proposed new plant addition at Funston street and Sylvania avenue, to be two-story and basement, brick and concrete, 50 x 100 ft., estimated to cost about $30,000. It will be used for storage and distributing service. Mills, Rhines, Bellman & Nordhoff, 1234 Ohio Building, are architects. S. E. Butler, president, is in charge.

Erie, Pa.—The Hammermill Paper Company has awarded a general contract to the Henry Shenk Company, 132 Seventh street, Pittsburgh, Pa., for the erection of a new addition to its plant on tract of land acquired a number of months ago. It will cost about $65,000. Work will be placed under way at once. The company is said to be planning for additional units at a later date.

Whippany, N. J. — Frank Desiderio, 362 Jefferson street, Newark, N. J., has work in progress on a new one-story paper stock house on local site recently acquired from McEwan Brothers, consisting of a one-story building, 180 x 200 feet. It will be used for resorting, packing and kindred service.

Vancouver, B. C.—The Powell River Company has awarded a general contract to the Vulcan Iron Works for steel framework for the proposed addition to its paper mill at Granville Island, to be equipped as a machine room unit. It is estimated to cost about $45,000, exclusive of machinery. Work will be placed under way at once.

Fort Francis, Ont.—The Backus-Brooks Company, Lumber Exchange Building, Minneapolis, Minn., has started work on its proposed new wood pulp mill on local site, for which plans have been in preparation for a number of weeks past. The project will consist of a number of buildings, with power unit, estimated to cost about $1,000,000, with machinery.

North Bay, Ont. — The American Consulate, George E. Seltzer, vice-consul, North Bay, has information regarding a project of a paper company in this section which proposes to build an addition to its bleached sulphite mill. The present unit has a rated output of 170 tons, and this will be increased to 250 tons daily. Considerable new machinery will be installed. The estimated cost is placed at $1,500,000. Additional information at the office of the Bureau of Foreign and Domestic Commerce, Washington, D. C., Reference No. 184,335.

New Companies

Chicago, Ill. — The Lake Superior Paper Company, Room 1123, 111 West Washington street, has been incorporated with a nominal capital of $5,000, to manufacture and deal in paper products. The incorporators are George S. Gaylord, Frank Beisel, and E. M. Ashcraft.

Wilmington, Del.—The Bur Products Company care of the Colonial Charter Company, Ford Building, Wilmington, representative, has been incorporated with a capital of $750,000 to manufacture paper boxes, tubes, etc.

New York, N. Y.—The New Castle Paper Products Company, care of the Registrar & Transfer Company, 900 Market street, Wilmington, Del., representative, has been incorporated with a capital of $103,000, under Delaware laws, to manufacture and deal in paper products. The incorporators are J. R. Ryan and Hastings Lyon, New York; and U. M. Waite, White Plains, N. Y.

Big Business Builds The Ferguson Way

THIS is an actual photograph of a Ferguson Standard No. 3 building, 150 x 560 ft., built for the National Cash Register Company at Dayton, Ohio.

It is almost exactly like others of the same type in use by Procter & Gamble, Showers Bros., General Electric, Robbins & Myers, and many other manufacturers who have bought this Ferguson building.

You can save the time and money usually spent in employing architects and making plans, and get the highest type of industrial building at once. Ferguson will ship this type of building in any reasonable size from stock, and *guarantee* useful occupancy in 30 working days at a definite price under a binding guarantee. Phone or write for a Ferguson executive.

THE H. K. FERGUSON COMPANY

Cleveland Office: 4900 Euclid Avenue · *New York Office:* 25 West 43rd Street

Branch Offices at 841 David Whitney Building, Detroit, Michigan and Birmingham, Alabama

New York Trade Jottings

The Hersey Paper Company, Inc., Jacob J. Hersey, president, now located at 264 Eleventh Avenue, has leased the entire floor of the building at 521-23 W. 26th street.

* * *

E. A. Peterson, president of the Valley Iron Works, and Wm. Wing, president of Fox River Paper Company, Appleton, Wis., returned on the "Homeric" Wednesday, after visiting paper and pulp centers of Europe for a couple months.

* * *

The Binders Board Association will meet in New York on November 24. It is understood that William A. Gately, of the Simplified Practice Division, Department of Commerce will address the meeting. Answers to the questionnaires have been received by the department and Mr. Gately is having a summarized report made of the replies which he will present to the meeting.

* * *

H. L. Paddock, president of the Oswego Falls Corporation of Fulton, N. Y., arrived in New York City last week to attend business here. Wilson Compton, secretary of the National Lumber Manufacturers' Association, was another arrival in town. Others included E. H. Finlayson, director of the Forest Branch of the Dominion Government, Ottawa, Canada, and Charles Lathrop Pack, president of the American Tree Association, Washington, D. C.

* * *

Charles F. Noyes Company has negotiated for the Schieren Realty Corporation a long-term renewal of the J. E. Linde Paper Company lease covering the four buildings at 82 to 90 Beekman street, northwest corner of Cliff street, at an aggregate rental of approximately $300,000. The new lease, which becomes effective May 1, 1927, covers the payment by the tenant of taxes, assessments, repairs and insurance. The Linde Building covers a plot of approximately 15,000 square feet and contains over 100,000 square feet of area. It is one of the largest buildings at the east side and is modern in every particular, fully sprinkled and with heavy carrying capacity.

* * *

Adam K. Luke of West Virginia Pulp and Paper Company, Chairman of the Paper Manufacturers and Dealers trade group for the Ninth Annual Roll Call of the American Red Cross, was host Wednesday, October 28, at the Union League Club, to the members of his committee. Those present were: J. H. McCormick; J. L. Fearing, International Paper Company; E. E. Wright, Miller and Wright Paper Company; and R. D. W. Ewing, American Writing Paper Company. In a report made on a letter of appeal sent out to the members of the trade, it was announced that more than twice as much had been received to date than last year, although the Roll Call itself does not begin until November 11. The Paper firms were divided among the committee members and all were enthusiastic in predicting a heavy quota for the group.

Boston Demand Fairly Satisfactory

[FROM OUR REGULAR CORRESPONDENT]

BOSTON, Mass., November 2, 1925.—With October now a closed chapter, paper merchants in this section express the opinion that the month's business has done much toward pulling certain branches of the industry out of the so-called "business mire." Despite the fact that the last seven day were of "spotty" nature, due to a combination of circumstances, the general run of trade has been satisfactory and it is believed that when the 1925 figures are surveyed October will have received due credit in making the year a fairly good one for Boston, taking general trade conditions into consideration.

One of the chief activities of the week in Boston—an activity that created wide interest in paper circles of Greater Boston, not so much from a buying and selling point of view, but one that did much to aid the trade—was the eighth annual session and exposition of the Direct Mail Advertising Association which was held at Mechanics Building and which was attended by several thousands of persons from various parts of the country.

Paper merchants of Boston did much towards the success of the convention and all agree that the dicussions, and the exposition itself, gave a much needed impetus to the local trade.

There were about 145 booths, distributed among about 125 exhibitors, many of them well known paper manufacturers, dealers and merchants.

The past week showed that coarse paper houses are doing a lively business, a bit lower than last week, however. The survey also showed that in this division no two jobbers were moving the same particular lines. This situation also prevailed to a great extent, among the fine grade paper houess.

The printers continue to call for a variety of lines, being about the busiest craft in the city just now. The wrapping, screenings and bogus lines are in heavy demand and will continue to be until after the first of the year, say leaders in these lines. It is said that the jobber who has a generous sample of Kraft stock on hand at present is an exception.

The mills in this line are very busy. This is particularly true of the New England Mills. This is reflected in the strong condition existing in old papers, notably Kraft. Little more can be said of the old paper and bagging market. While the mills are not holding large amounts of stock in reserve (and some are quite low according to authentic reports) this fact causes them no alarm. They seem confident that they can buy any amount they desire at any time and at their own price.

Chip and box board merchants report little change, possibly a little easier demand. It was stated, however, that price-cutting in this particular branch of the business is manifesting itself. "By slicing the edge a bit, here and there one may get the business," is the way it was expressed in one quarter.

American Writing Protests Taxes

[FROM OUR REGULAR CORRESPONDENT]

HOLYOKE, Mass., November 2, 1925—The American Writing Paper Company paid its taxes on Friday under protest. The amount was $193,347. President S. L. Willson of the Company in making the protest stated that he believed that the valuation of the property as figured by the assessors is excessive. This year the valuation was figured at $8,406,370, last year it being assessed at $8,833,870. President Willson says that men acquainted with paper mill property agree with him that the valuation is too high. The Company will not make any fight in the courts but doubtless will appear at some stated time before the assessors.

The usual procedure is to ask for a hearing and if the petitioner is dissatisfied with the findings of the assessors at the hearing an appeal may be made to the Superior Court. Owing to the cost of carrying on such an appeal and of conducting the hearing this course is seldom resorted to.

Charles H. Thomas & Co. in New Quarters

[FROM OUR REGULAR CORRESPONDENT]

SPRINGFIELD, Mass., November 2, 1925.—The Charles H. Thomas & Co., dealers in paper and twine has removed from 21-23 Market street to 63 Lyman street, giving larger quarters and better facilities for their expanding business. This location is very near to that first established when the firm began business 27 years ago.

The Charles H. Thomas Company is a continuation of the William H. King Paper Company established in 1874 in the old Abbey block opposite Stearns Square. William H. King was one of the pioneer paper dealers in Springfield and is remembered by the older men in the business. The paper that he handled was made in part in South Hadley from old sacking and waste paper.

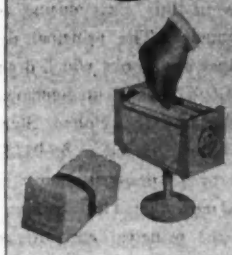
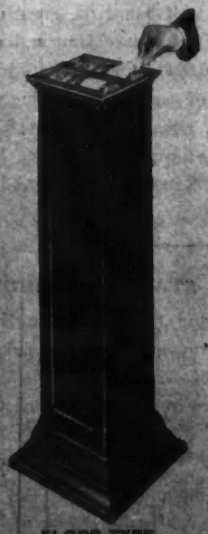


TABLE TYPE DISPENSER

A PACKAGE FOR ALL OCCASIONS



FLOOR TYPE DISPENSER

"WON" BY ONE

Announcement

Hy-G Paper Napkins and Dispensers offer the solution to the unsanitary and wasteful use of paper napkins.

Hy-G Products are in a class by themselves.

The ECONOMY of HY-G PRODUCTS counteracts the lowest priced paper napkins, which in every shape or fold in the crude manner they are served, are always *wasteful* to the extent of 50%.

Over seventy distributors throughout the country command ever increasing sales and handsome profits on Hy-G Products because of their exceptional merits.

Hy-G Products sell at sight whenever and wherever introduced to paper napkin consumers.

Exclusive Distribution Only.
Details on request.

HY-G PRODUCTS

"Won By One Never Loose"
Saves 50% Waste
Plus Highest Quality

Independent Paper Mills, Inc.

Patentees—Manufacturers

Brooklyn, N. Y.

U. S. A.

[*The methods of folds, manufacturing, dispensing, together with trade marks, are patented and registered in the United States, Canada, Great Britain, France and Germany.* Infringements will be rigidly prosecuted.]

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FOREIGN PAPER TRADE ANALYSIS

After a slight decline in August exports of paper and paper products, according to the Paper Division of the Department of Commerce, showed an improvement during the month of September. Paper exports for September were valued at $1,986,463, representing an increase of 2 per cent over August exports, and of 5 per cent in comparison with September, 1924.

The principal decreases in comparison with August are shown in exports of other wrapping paper, other paper and strawboard, sheathing and building paper, paperhangings and book paper. These losses are more than offset by increased exports of other classes of paper, principally newsprint, boxboard, wallboard of paper or pulp, paper bags, boxes and cartons, and surface-coated paper.

Exports of news print continued to rise, reaching 3,737,059 pounds in September as compared with 3,115,857 pounds in August, and 1,815,802 pounds in September, 1924. Other important increases over September, 1924, are noted in cover paper, greaseproof and waterproof paper, toilet paper, bristols and bristol board, wall board of paper or pulp, blotting paper, paper bags, and boxes and cartons. The most notable decreases under September, 1924, are found in book paper, which dropped from 2,157,093 pounds in September, 1924, to 1,319,136 pounds in September this year; other paper and straw board, including boxboard, from 5,768,827 pounds to 4,329,162 pounds; cigarette paper and books, from 77,387 pounds to 37,829 pounds; and paperhangings, from 1,260,295 pounds to 596,060 pounds.

Shipments abroad of paper base stocks during September totaled 8,886 tons, valued at $514,908, an increase in quantity of 20 per cent over September, 1924, and of 8 per cent over August, 1925. Of the items listed under this classification over 73 per cent consisted of rags and other paper stock, 24 per cent sulphite wood pulp, and the balance soda and other wood pulp.

Imports of paper and board into the United States continued to decrease during September. Total imports during this month amounted to $9,066,302, representing a decrease of 2 per cent under September, 1924, and 4 per cent under August, 1925. The bulk of these imports consisted as usual of standard newsprint, receipts of which show an increase of 4 per cent as compared with the previous month, but a decrease of 2 per cent when compared with the same month last year. Imports of greaseproof and waterproof paper,, kraft wrapping, pulp boards, other paper boards, photographic paper, and unprinted decalcomania also were greater than during the preceding month, but all other classes declined. The most notable increase in imports is that of pulp board in rolls, which rose from 4,592,308 pounds in August to 6,890,211 pounds in September this year. Receipts of this class during September, 1924, amounted to 5,431,966 pounds. The principal decrease in imports is noted in cigarette paper and books which dropped from 2,797,850 pounds in August to 610,972 pounds in September.

Imports of paper base stocks into the United States during September amounted to 154,064 tons, valued at $7,953,547, representing a decrease in quantity of 13 per cent under September, 1924, and an increase of slightly more than 1 per cent over August, 1925. Unbleached sulphite is the principal class of paper base stock imported, representing 35 per cent of the September imports, followed by rags for paper stock and kraft pulp, each 15 per cent, mechanical groundwood, 14 per cent, and bleached sulphite 13 per cent.

Imports of paper and board during the first nine months of 1925, which were valued at $17,754,093, were slightly under the value of those of the same period in 1924. This decrease, however, was due to the heavy decline of a few important items rather than a general loss all along the line. Exports of nearly all classes of paper and board during the first nine months of the present year were larger than during the corresponding period last year, the most notable exceptions being in exports of paper board and strawboard, including boxboard, which dropped from 57,131,179 pounds to 36,380,155 pounds, wall board of paper or pulp from 13,162,677 square feet to 9,815,477 square feet, and writing paper from 3,522,915 pounds to 2,490,894 pounds. There has been a remarkable increase in imports of paper base stocks, amounting to 17 per cent of the 1924 total, rising from $66,344,851 in 1924 to $77,621,707 in 1925. Exports of paper base stocks, however, also show an increase from $3,012,898 in the former period to $4,271,467 in the latter.

BETTER TRADE STATISTICS URGED

The development of more and better trade statistics by business organizations for the information of their members was advocated in an address recently by E. W. McCullough, manager of the Department of Manufacture of the Chamber of Commerce of the United States.

Mr. McCullough declared that "we are suffering today from the lack of facts as to what is going on in the vast majority of business lines." This condition will continue, he said, until every producer, distributor and handler of merchandise sees the advantage of contributing his quota of facts, and the situation is reflected through reports of trade associations organized effectively to represent given lines of industry. Mr. McCullough further said that Secretary Hoover believes that trade associations and not the government should gather and supply this data, it being impossible for any governmental agency to be as technically familiar with any line of industry as are those who are daily engaged in it.

It was stated by Mr. McCullough that much effective work along this line already has been done in a number of trade associations, and the number so engaged has increased since the recent decisions of the Supreme Court in the so-called "Maple Flooring and Cement Cases" which adequately and definitely registered the views of the highest court and the government as to what trade organizations may do in dealing with statistical data.

In the gathering and dissemination of statistical material by trade associations, Mr. McCullough emphasized the following points as of greatest importance:

"First—That as a beginning, trade associations should gather only such fundamental figures and information as the large majority of an industry may agree upon;

"Second—That while it is perhaps impracticable to devise a standard form of report for lines more or less technical, it is possible to arrange a portion of all reports so that such essentials as *capacity, production, shipments, stocks, unfilled orders and prices on closed transactions* can be reported in a manner that will enable accurate comparisons to be made;

"Third—An effort should be made to simplify all statistical reports and bring them reasonably within common rules of reading and interpretation;

"Fourth—(and this suggestion perhaps should be first) The secretaries of all trade associations should devise plans for educating and informing their members as to the value and use of such data in the direction or management of their business;

"Fifth—Close and complete cooperation should be established between trade associations and departments of the Government, particularly the Department over which Secretary Hoover presides, in order that the public, as well as the industries, may participate in the benefits growing out of this work."

Continuing, Mr. McCullough said: "Statistics, like cost accounting, up to this time, have been viewed as not only a very technical but an expensive activity for a trade association, but there is abundant proof to the contrary and if an organization will map out a simple program, little additional help or expense over that already provided for their general work will be necessary to serve their members with this valuable information. Again, like cost accounting, you can make it as simple or elaborate as you choose, but it is highly desirable that each organization purporting to represent a trade line should without further delay consider the question, adopt a policy and follow it. "Intelligent competition cannot be promoted without the members of the industry knowing, on a fact basis, what is going on."

Western Paper Converting Company Builds Plant

The Western Paper Converting Company is building a plant at Salem, Ore., for the manufacture of paper specialties.

The corporation has an authorized capital stock of $200,000.00 which will all be invested in the plant and machinery. The company plans to manufacture all paper specialties not now being manufactured on the Pacific Coast. Included in this line will be glassine bags, candy bar wrappers, printed glassine of all descriptions, printed greaseproofs, special roll papers, etc.

It is expected that the plant will go into operation sometime about November 15. The plant is situated some eight blocks from the Oregon Pulp and Paper Company in Salem.

The officers of the company are F. W. Leadbetter, president; E. A. O'Neill, vice president and manager; F. W. Chausse, treasurer; and Joseph Prudhomme, secretary.

To Build Paper Products Factory at Los Angeles

[FROM OUR REGULAR CORRESPONDENT]

LOS ANGELES, Cal., November 2, 1925.—That construction of a $130,000 paper manufacturing plant is to start within the near future on a site in the East Side Industrial District was announced last week by officials of the Thomas Paper Converting company and representatives of the Austin company of California who will build the plant.

The new factory is to be in operation shortly after the first of the new year, it was said. Of the $130,000 expenditure, $50,000 will be put in equipment.

The Thomas Paper Converting company, which contemplates the expansion, is operating a factory at present at Twelfth and Main streets.

The new building will be 100x148 feet of brick and steel construction, two stories in front, which will be utilized as salesrooms and offices. The structure will be faced with brick and a specially designed loading platform will be located in a recess of the front elevation in such a way as not to affect the architectural design, which is taken from one of the old Roman types.

The factory section will be of steel sawtooth construction so as to afford adequate light and ventilation.

The new plant will contain 18,200 square feet of floor space. About 100 people will be employed in the manufacture of envelopes and other paper products.

The paper company is the exclusive distributor on the Pacific Coast for seven paper mills of the Atlantic seaboard. Envelopes, tablets and paper specialties are manufactured by the company on a large scale.

George B. Thomas, president and general manager of the concern, asserts the consumption of envelopes and other paper products in Los Angeles has grown to enormous proportions during the past two and a half years the company has been in business.

Besides President Thomas other officers of the firm are A. J. Spratt, vice-president, and E. Y. Johnston, secretary. Seven representative business men comprise the board of directors.

Paper Mill at Doe Run Sold

COATESVILLE, Pa., November 2, 1925.—The paper mill and property of Willis F. Palmer at Doe Run has been sold to a Philadelphia man who is expected to take charge on April 1. The sale is of exceeding interest to people in this section for a number of reasons.

According to reports the property was purchased by a man by the name of Aronsohn. One story being circulated about Doe Run is to the effect that he expects to move there with his family and continue to operate the mill. Another story is that it was purchased for the du Pont interests, who own a large amount of property in that immediate section.

The sale of the property is also interesting for the reason that this mill is one of the oldest mills of its kind in the United States, and besides it is said that there is no other one like it anywhere. Its output of finished products is small; it is operated by water power and the paper boards are dried in the sun instead of being dried by steam.

While this process of paper manufacture is somewhat primitive it produces a product of such rare quality that it is in great demand. Two kinds of paper boards are manufactured at the mill. One is a jack board used in the manufacture of Brussels carpet and the other is a binding board a large amount of which is used by the State printery at Harrisburg.

Mr. Palmer has operated the mill for about thirty years and has always found a ready sale for all the paper he could produce. His output was limited, however, by reason of the manner in which the board had to be manufactured. According to friends he has so far made no plans for the future, but he will probably locate in this section.

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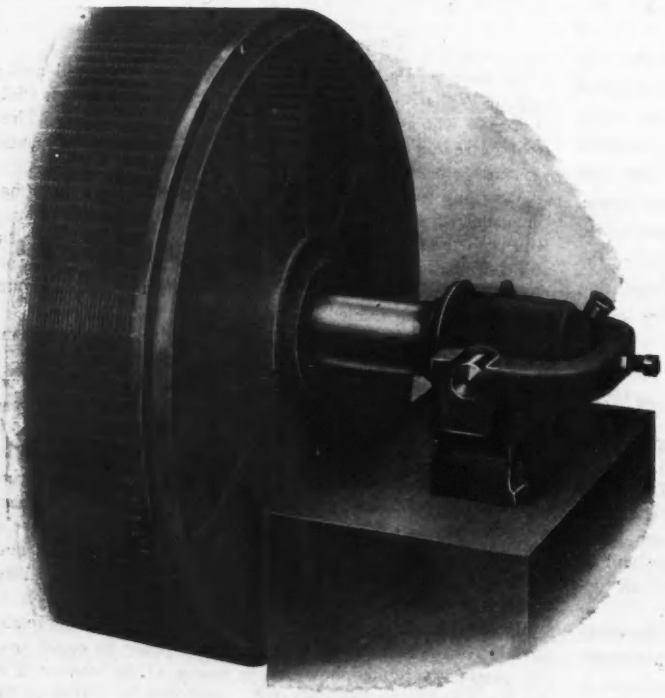

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Section of the

Technical Association of the Pulp and Paper Industry

AN ORGANIZATION FOR THE ENCOURAGEMENT OF ORIGINAL INVESTIGATION AND RESEARCH WORK IN MILL ENGINEERING AND THE CHEMISTRY OF PAPER, CELLULOSE AND PAPER-MAKING FIBERS GENERALLY; IT AIMS TO PROVIDE MEANS FOR THE INTERCHANGE OF IDEAS AMONG ITS MEMBERS IN ORDER THAT PROCESSES OF MANUFACTURE MAY BE MADE MORE EFFICIENT AND IMPROVED ALONG TECHNICAL LINES.

Conducted by W.G. MacNAUGHTON, Secretary

A Resume of My European Trip

By William G. MacNaughton, Sec. TAPPI

As already announced I sailed on the Majestic September 12 with one of our members, A. J. T. Taylor, president of Combustion Engineering Corporation, Toronto, and four other distinguished engineers of United States and Canada.

Among the passengers were Sir Glynn West, president, and Major D. C. Jennings, director of Newfoundland Power & Paper Company, Ltd., whom I had met two weeks previous at Corner Brook, Newfoundland.

We were in England for five days and during the time I spent two days in Kent visiting three of the news print mills, including the new Bowater's Paper Mills at Northfleet, where a new two machine mill is being erected. Mr. Arthur Baker, one of our members, is the managing director, and I had an extremely pleasant visit with him as well as meeting several other paper mill managers and engineers.

During our stay in England I understand that the weather was quite seasonable, as it rained continuously.

On September 23 our party left for Sweden, travelling by way of Holland and Germany. On our way we were two hours in Berlin where we had dinner before taking train for Sweden. On arriving at Malmo we were met by Dr. Johannes Ruths, the eminent Swedish engineer and inventor of the Ruths steam accumulator system. With Doctor Ruths and his associate, Mr. Nils Frenne, we visited typical installations of the accumulator in a wide range of industries, including electric power stations, textile plants, a sugar refinery, a brewery, a rubber factory, a hotel, a dairy, an educational institution and several pulp and paper mills. We also had the pleasure of meeting a great many of the best known engineers as well as the heads of Swedish industries.

In my travels through Sweden, especially at Stockholm, I met a number of men from this country and both in Sweden and Norway visited with all the members of TAPPI in those countries, besides making the acquaintance of many others of high standing. Altogether I visited ten pulp and paper mills and two machinery manufacturers in Sweden.

In Norway I visited with Magnus Christiansen, managing director of the Union Company, a member of the Technical Association, who is also president of the Norwegian association of engineers and chemists. With him I met Mr. Skjenneberg, the chief engineer, who is a member of TAPPI, and Dr. Sigurd Samuelson, the director of the recently established research institute which has been financed by the Norwegian pulp and paper manufacturers. I visited two of the mills near Oslo and also the new laboratory of which Doctor Samuelson has charge.

From Oslo I returned to London by Bergen and Newcastle, across the North Sea, in time to catch the Berengaria which sailed October 17.

On the return voyage I had the pleasure of seeing again Mr. Nishi, manager of Oji Paper Company of Japan, whom I had met in New York a few months before. I also was very glad to find on board Mr. W. H. Waldron, president of John Waldron Corporation, who was returning from a hurried trip to England.

Although there are many interesting details I have been obliged to omit for lack of space, I can say that the trip was a most valuable experience and I feel sure will prove beneficial to the Technical Association and to the industry here as well as in the countries I visited.

Foreman Training

The experiences of more than one hundred manufacturers who have conducted foreman training in their plants are summarized in a pamphlet, called "Foremanship," just issued by the Department of Manufacture of the Chamber of Commerce of the United States. The summary deals with foreman training methods used in virtually every branch of industry, and in manufacturing plants of varying production capacities.

In the foreword of the pamphlet the Department makes it clear that it does not advocate any particular system or plan, but merely furnishes developed information and experience gathered from reliable sources.

A copy of this pamphlet can be obtained by communicating with the Department of Manufacture, Chamber of Commerce of the United States, Washington, D. C.

Consistency Regulators

Special Inquiry No. 33

A member wishes to get information on the experience in the paper industry in regard to consistency regulators:

1. Type of consistency regulator.
2. The stock or furnish on which it is used.
3. The point in the system at which it is placed
4. Has the regulator given satisfactory service? If so, please state in what respect, with data or curves, if possible, showing the density of the stock before and after passing the regulator.

A transcript of the replies in blank will be sent to all who supply information.

As a result of the recent visit to America of H. Smidt Van Gelder, and the knowledge he obtained of the good work being done for the paper industry by the Technical Association, Van Gelder Sons Company, the leading paper manufacturing firm of the Netherlands, has taken Corporate Membership in the Association.

Paperboard and Its Manufacture X*

By A. O. Bragg

(Continued from August 13, 1925)

Preliminary Treatment of Waste Paper and Pulp[1]

The present chapter will cover the receiving, storage and preliminary treatment of waste paper and pulp up to the beaters. In this connection, certain tendencies in regard to mill control which have a direct bearing on present policies as to mill design, operation and administration, will be noted. These are:

Tendencies Regarding Mill Control

1. Closer control of raw materials until used, by inspection of quality and quantity (shipping weight), and storage in planned and recorded locations.
2. Control of the withdrawal from storage of raw materials for use, through written beater orders and the weighing of all materials furnished.
3. Coordination of items 1 and 2 with the Cost Department, with provisions for the information to be transmitted promptly to the Traffic, Purchasing and Production departments. As a corollary, the tendency to place items 1 and 2 under the jurisdiction of the Cost Department.
4. The gradual discontinuance of mills buying, cleaning and sorting their waste papers, and disposing of the grades which they do not use, and the increasing tendency toward the purchase of initially higher quality of packings (higher grades of waste paper)—with inspection before acceptance.
5. The increase in the use of mechanical handling of raw materials to the beaters.
6. The tendency toward the measurement of all materials furnished to the beaters.
7. The increasing application of beating control methods by recording and measuring devices.
8. The tendency toward relieving the beaters of the work of breaking and de-fibering the paper, and avoiding grinding up foreign materials in the waste paper stocks.
9. The increasing practice of breaking, de-fibering and purifying cheap waste papers used in large amounts—such as mixed papers and news—in breaker beaters, de-fibering systems or continuous beaters located in a central stock house, piping the fiber to the beaters as slush stock.
10. The slowly increasing tendency toward the application of technical control to board mill operations.

The degree to which these tendencies are manifest in a given mill depends on:

1. Mill design and layout.
2. Whether the mill is old or new.
3. Grades of board manufactured.
4. Present equipment.
5. Grades and quantity of waste paper stocks and pulp, continually available.
6. Management policy.

Tendencies No. 8 and 9, which are complementary, are the result of a distinct evolution in the beater room practice of board mills. While this point might perhaps more properly be treated in discussing the beater room, it is mentioned here because of its great influence on all present board mill practice.

The original conception of the function of the beaters among board manufacturers was that the waste paper and pulp should simply go into them and then, from the chests, pass to the jordans. There are, to this date, many mills in which this is still the practice—the refuse from mixed papers, etc., being removed by shovels from the beater tubs, chests, etc., and with no attempt to prevent the cutting up and overtreatment of fibers.

The First Real Advance

The second idea in regard to stock preparation, and the first real advance, was that of furnishing the coarse waste paper to first pulpers or breaker beaters, located above the beaters and into which the partially defibered but still refuse-laden paper stock was dropped. This scheme, while having some advantages over the first one, had enough disadvantages to counteract them. The refuse problem was still unsolved, the cost per ton for labor, power, floor space and maintenance cost was large, while the stock consistency was anything but uniform.

The growing realization that a beater was not constructed for such work, and does not operate efficiently for defibering, breaking and refuse-eliminating, in addition to its regular job of beating and mixing, together with the appreciation that in attempting to do so, much fiber is cut up by the time the hardest-sized pieces of paper, parchment, etc., are defibered, resulted in the development of the third method of treatment, the continuous beater system.

With this advance in practice, of comparatively recent date has been the development of various attachments to pulping beaters or breakers which allow the defibered pulp to leave as slush as soon as it has reached this condition, thus not only preventing cutting and over-treatment of the long fibers already sufficiently beaten in the waste papers, but enormously increasing the possible output of a pulper. This is one of the most radical and far-reaching steps that paperboard mills have adopted; and is the thought which has crystallized in the fourth and most advanced method of treating waste papers.

This is the design of combined breaking, defibering and refuse-eliminating units of large capacity, and their use in handling, at a central point and often directly from the freight car, all the coarse grades of waste papers—mixed papers, hews, etc.—used by the mill, the fiber being piped, as slush, or to a proportioning and mixing system to the beaters for mixture with the higher quality waste paper and pulp.

Methods of Grading

Before considering the methods of receiving, storing, controlling and preliminary treatment of waste papers and pulp in board mills, some data will be given on the methods of grading used by the paper stock packers: on the advisability of board mills owning and operating their own waste paper companies: and on warehouse design.

The packers receive their supply from many different sources. These include office buildings; printing, publishing and lithographing houses; paper box, paper products and millinery plants; department stores; country junk dealers; and from the push cart and junk men. In the latter case, the collection of waste papers is only incidental to their chief business of gathering all kinds of junk. A large amount of waste paper is obtained from the country junk dealers and others who pack their own waste accumulations. These sources send in perhaps a carload or two monthly to the large packer in the city. The "crude" waste paper from the country is termed "country pack" by the large packers.

In general, the crude waste paper from the country contains quite a little kraft and other strong papers, as well as considerable dirt and refuse. That collected by the junk and push cart men is probably the dirtiest and contains the most foreign material, and consists of everything in the way of paper fiber. Paper box

* Previous installments of Paperboard and its manufacture appeared as follows: I. Paper June 26, 1924; II. Paper, July 10, 1924; III. Paper, Sept. 18, 1924; IV. Paper, Oct. 30, 1924; V. Paper, Nov. 20, 1924; VI. Paper, Jan. 8, 1925; VII. Paper Trade J., Apr. 9, 1925; VII. (Cont'd) Paper Trade J., May 14, 1925; VIII. Paper Trade J., June 18, 1925; IX. Paper Trade J., Aug. 13, 1925

[1] See Manufacture of Pulp and Paper, Vol. IV., sec. 2.

factory waste is comparatively clean and free from refuse, and consists largely of chipboard, newsboard, strawboard, kraft container liner, etc., and may be graded as to kind of waste, or not. The waste papers from the other sources is, on the whole, of the highest classes and contains the largest percentages of book, bond, bristols, ledger, etc. This is especially true of waste from printing, publishing and lithographing houses, and office buildings.

All of this original waste paper is purchased by weight and "as is"; and it is this latter factor that causes the large amount of non-papermaking substances usually found in "mixed papers" as sent to the board mills. The usual practice of the packers is to dump these collections, without dusting or screening, directly on to a conveyor belt, with all the sweepings, old lunches, refuse, etc., left in. Spaced at intervals along the belt are sorters who pick out all the choice, better-quality paper, such as krafts, clean manilas, ledgers, books, writing paper, newspapers, magazines, printed manilas, bagging, strings, rags,, etc. These are packed and sold for higher grade papers, and bring much better prices. The balance left on the belt consists principally of broken boxes, box factory clippings, and rubbish of all kinds. This is baled and sold as "mixed papers."

A few of the larger and better packers have installed preliminary dusting and screening systems, and are careful to see that the refuse left in does not exceed a certain amount. These dusters and screens remove the sweepings, dust, iron, glass, etc., up to about ¼ inch in size. The larger refuse is removed by hand.

As a consequence of the methods of a large number of the packers, the quality of the "mixed papers" is very poor, when considered from the standpoint of yield of good fiber per ton. The very existence of such large amounts of refuse, indeed, has not been without its good points, as it has been one of the primary causes of the development of the present efficient breaker and continuous beater systems. But the absence from "mixed paper" of all the "cream" in the original collections necessitates the addition of stronger fibers—as pulp or higher grade waste papers—if a strong sheet is to be made.

It was formerly the practice of all the packers to remove the refuse before sorting, so, on the average, the quality of "mixed papers" is now lower than formerly.

The higher grades of waste papers, such as shavings, envelope clippings, krafts, etc., are now supplied in a high state of purity and uniformity—considering the variable nature of the papers themselves. With continued inspection of shipments, and with careful selection of the paper stock dealers, little trouble should be experienced from refuse and foreign matter. In fact, if the mill buys its waste paper already graded, a trip to the plants of the various packers in the vicinity is well worth while, as their methods, and quality standards, can be verified at first hand.

The items to be watched in the inspection of waste paper stocks are suggested in the various "Specifications for Waste Paper Grades," given in this series in the PAPER TRADE JOURNAL for June 18, 1925.

Discussion of Methods of Collection

The question of the advisability of board mills owning and operating their own waste paper stock companies or departments, doing their own dusting, sorting and sale of unwanted grades, was quite thoroughly gone into by a mill with which the writer was connected and some interesting data obtained which reflected the attitude of several concerns who had been in or were in this work. An analysis of the replies received is given herewith.

Of the eight mills answering, three thought the establishment of such a department or subsidiary company, a good thing; one mill was decidedly in the negative; and the other four were non-committal, saying that the decision depended on conditions.

The negative reply gave no reason for their conviction. Of the three favorable replies, one gave the reason that they were obtaining much better quality and uniformity in their mixed papers, and got the benefit of the stronger papers obtained. Previous to sorting their own papers, they were experiencing much difficulty in getting the proper test owing to the large amounts of straw, news and other weak papers in the "mixed" purchased. This mill makes corrugated and solid fiber shipping containers and is one of the largest.

The second reply repeated this idea and added that, while not much profit was made, the higher grades obtained about paid the cost of sorting. This mill makes the same products as the first.

The third mill, located in a large city where there are several large and high-class packers, stated that at the time when other mills were having trouble in getting waste paper, they automatically got theirs through their waste paper company. They have discontinued it and get their supply through local dealers on a cost plus basis; but, all in all, think that the paper stock company is the better of the two. Their cost plus arrangement is stated to be satisfactory. Their product is the same as the previous two.

The first non-committal reply—from a very large mill making the above products—believes that, unless the mill is handling a large tonnage of crude waste paper—such as ten to twenty cars per week or more,—the labor cost involved in sorting would not make it a paying proposition. With such a large consumption, it might.

The second reply brings up the points that the paper stock business is one in itself; requires a great deal of attention to keep from losing money; and the characteristic trade customs and policies of the paper stock packing business should be considered. Lastly, as showing the influence of local conditions they are of the opinion that it would be a good plan to go into the business where there are large nearby markets, with packers who put out good grades of stock and among whom, in ordinary times, buying competition is keen. This mill makes a varied line of paperboards, using both low and high grade waste paper stocks.

The third non-committal reply apparently strikes at the root of the whole matter. They state that their sorting operations have not been very profitable; and feel that it is a matter *depending on local conditions entirely*. They state that, while their own pack is better than they could purchase, there are shippers in the vicinity who could furnish them with satisfactory grades.

Another factor that is most important in reaching a decision of this kind is the percentage of higher grade papers obtainable. Others things being equal, the percentage of scrap that would be sorted out and sold at higher prices, will govern the profit possible. This information could be obtained only by a series of tests, over a considerable period, taken on the stock which it is expected to buy and sort.

Warehouse Design

The functions of the raw material warehouse are to receive, inspect, weigh in and out, keep stored in good condition and without loss, and to supply the beaters or pulpers in the amounts and grades specified, with waste papers, alum, size, and other raw materials. The color room is frequently placed under the jurisdiction of the beater engineer on account of its location and the familiarity with it which he must have at all times.

As contrasted with other types of paper mills, such as rag, straw, etc., most of the materials in board mills go directly from the warehouse storage bays to the beaters or pulping equipment, without change in the physical character of the fibers. The directness and simplicity of the material flow in paperboard mills using purchased waste papers and pulps, gives the opportunity of obtaining extremely close coordination between the supplying and first-processing departments. The very close control thus possible, of the quantities and grades of materials used, together with the compara-

tive simplicity of organization required, is an advantage which it is believed is not everywhere appreciated.

Before considering the operations of the warehouse, some attention will be given to warehouse design, with especial reference to the efficient performance of the above functions.

There are several factors to be taken into consideration in warehouse design for board mill service, these factors being comprehended in the tendencies given at the beginning of this chapter. These factors are as follows:

A. Service Considerations

1. Light.
2. Heat.
3. Protection of unloading crews from weather.

B. Warehouse Operating and Overhead Costs

1. Insurance rates, on building and stocks.
2. Labor cost, compared with extent to which labor can be more economically replaced by machinery and handling appliances.
3. Size of mill, in daily tonnage.
4. Cost of materials used. (Comparative).
5. Mill layout.

C. Space Requirements

1. Size of mill, in daily tonnage.
2. Space available for warehouse expansion to keep balanced with increased production from any contemplated mill expansion.
3. Space to be allowed for surplus stock.
4. Weight per cubic foot, of materials.
5. Mill layout.

D. Materials Control

1. Protection of materials against fire, decay, freezing, excessive drying out, water, loss, mixture with other materials—especially of lower quality—and contamination.
2. Proper segregation of individual shipments, for inventory and materials control purposes.
3. Inspection of shipments.
4. Accurate and complete, material weighing.
5. Cost of materials used. (Comparative.)

E. Materials Processing

1. Location of beaters and pulping equipment, relative to those of railroad or water receiving point, scale houses, and material storage bays.
2. Preliminary treatments given, as shredding, pulping, deinking, etc.
3. Treatment of broke, and its handling.

A. Service Considerations

Sufficient light should be provided in the storage bays, and it should be so directed, that identifying tags, bin cards, etc., as well as the nature of the material, can be clearly seen at night. This provided, there will be little excuse for the wrong kind of material being taken and sent to the beaters. This has frequently occurred, where the light was insufficient, to the detriment of the board and its costs.

The scale houses, even if only "cubby ho'es," should have heat in the winter, as accurate weighings and records are impossible with cold fingers. The sections where paper stock (excluding dump stock) are kept, will need no heat; but tap and hydraulic pressed pulp should be kept warm to prevent freezing.

The size storage tank should also be kept warm, by steam coils, or if size in drums is used, the room where they are kept. Certain preparations used in board, such as stiffness compounds, sodium silicate, etc., should also be kept warm.

The comfort of the unloading crews, who often work in snowstorms, rain and cold, should also be considered. In this connection, covered receiving and unloading platforms, and a small, heated wash and locker room, are paying investments.

B. Warehouse Overhead and Operating Costs

The matter of insurance is comprehended in the discussion of the protection of materials, under "D. Materials Control."

The question of labor cost vs. handling equipment, is important. For example, labor in the Northern states is so much more costly than in the South—equal capabilities considered—that Southern mills can use hand trucks and manual labor for transporting, piling and unpiling to a larger extent, economically, than can Northern mills of the same type and size.

The mill with its beater room on the floor above the car track level will need one or more elevators, large enough to handle the largest size bales purchased or broke trucks, if these are used. At the same time, consideration should be made to its probable use for handling large castings, machine parts, etc., such as beater rolls. For the larger mills, consideration should be given to the application of portable elevator stackers, large box trucks for loose waste papers and pulp, cranes, mono-rail systems and other means of mechanical transportation.

The items of mill tonnage, comparative cost of materials, and mill layout, must be considered, as they have direct bearings on warehouse costs. In general, the smaller the mill, the less overhead the warehouse can generally stand in the way of expensive material handling equipment and the more costly the materials, the more. As an example of the influence of mill layout, a mill with an elevated beater room would find it economical to build up in the air, as three or four stories of warehouse, with good elevator equipment. The one floor beater room and machine room layout would indicate a high roofed, one story warehouse covering more ground.

C. Space Requirements

The size of mill, expressed in tonnage production per unit of time as a day, week, etc., is the fundamental factor as regards decision as to space required. Space may be obtained by covering more ground, by building more than one floor, or both, as the case may require.

From a theoretical standpoint, and neglecting the purchasing point of view, the warehouse would consist of enough space and protection, with necessary materials control system, to handle the stock received by one carrier arrival to that of the next. In other words, the ideal would be no storage period at all, the materials arriving in the order of the mill production schedule and used as soon as received. Such a condition is of course, impossible.

Again looking at the matter from an ideal point of view—this time from that of the purchasing agent only—the warehouse would consist of facilities and space to handle enough stock, bought at the lowest point of the market, to last the mill through the rise in prices and to their subsequent drop to the next bottom. A compromise between these two ideals is necessary in practice.

Perhaps a good average solution is enough space to hold from one to six months supply of the different materials, the amount of each being based on an analysis of past or expected sales of each product, made by the mill. Modern purchasing tendencies, for raw materials, are toward small orders and quick turnovers, rather than to stock heavily and try to beat the market on a rise in price. The inventory experiences in 1920 and 1921 are not forgotten.

Calculation of Capacity of Warehouse

The desired capacity of the warehouse, expressed in operating days or weeks being known or estimated, the weight of the various materials per cubic foot, especially waste papers and pulp, must be known to compute the necessary cubical capacity of the building. Some data on this subject are given below.

The first set of figures are for ground wood pulp and ground wood screenings, in wet laps and as piled.

Groundwood screenings	56% air dry	28-32	lbs. per cubic foot
Groundwood pulp	36% air dry	42	lbs. per cubic foot
Groundwood pulp	44% air dry	36-37	lbs. per cubic foot

The next data are taken from "Paper" for September 9, 1914, from an article by Beadle and Stevens of England. They were

obtained in an investigation of the effects of extreme compression on papermaking fibers

	Cu. ft. per ton	Pounds per cu. ft.
Moist mechanical pulp (50% water)	44	51
	36	61
Do. Average	40	56
Do. Equivalent dry weight	80	28
Sulphite, ordinary compression, air dry	65	34
Best practise for sulphite, air dry	50	45
Soda pulp (and kraft) dry	80	28
Sulphite, dry. By measurement and weight of bales in mill	61.6	36.4
	54	41.5
Do Average	57.8	39

The following table gives equivalents in cubic feet per ton and pounds per cubic feet, and density or specific gravity (water equal to 1.00). This table will be found useful for reference when considering the subject generally.

Density Equivalents

Cu. ft. per ton	Pounds per cu. ft.	Sp. gr. (water equal 1)
23.8	93.7	1.500
25	89.6	1.433
30	74.7	1.195
35	64.0	1.024
40	56.0	0.896
45	49.6	0.796
50	44.8	0.717
60	37.3	0.597
70	32.0	0.512
80	28.0	0.448
90	24.9	0.398
100	22.4	0.358
110	20.4	0.326
120	18.7	0.300
130	17.2	0.275
140	16.0	0.256
150	15.0	0.240
200	11.2	0.179
250	9.0	0.143
300	7.5	0.120
350	6.4	0.102
400	5.6	0.090

The specific gravity of cellulose and vegetable fibers generally approximates 1.500; hence the figure 93.7 would be for fibers compressed so as to eliminate all air space. This compression is approached in paper calendar rolls, vulcanized fiber, etc. This table is also useful in calculating the percentage by volume of air space and fiber.

Regarding the weight per cubic foot, of paper stock, such as mixed papers, news, etc., this varies considerably with the degree of compression in the baling press. There are several different sizes of bales, two common ones being 48 inches wide by 24 inches deep by 60 inches high, and 40 inches wide by 24 inches deep by 72 inches high.

The first bale mentioned will run from eleven hundred to thirteen hundred pounds, according to the compression; while the second size will run in the neighborhood of one thousand pounds.

Taking the weights of eleven hundred and thirteen hundred pounds as minimum and maximum respectively, the weight per cubic foot figures as follows:

1100 pound bale 48" x 24" x 60" 27.5 lbs. per cubic foot.
1300 pound bale 48" x 24" x 60" 32.5 lbs. per cubic foot.

A 1000 pound bale of book shavings will be about 70 inches high, weighing 14.3 pounds per inch of height, including the small amount of moisture present in the paper.

D. MATERIALS CONTROL

One of the primary functions of a warehouse—not always fulfilled—is to protect the materials stored in it. This protection is against all agencies which may reduce their weight or value, such as loss, decay, fire, freezing, excessive drying out, mixture with other and lower quality materials, contamination, etc.

Elementary as is this principle, it would seem that in many cases raw material warehouses of paperboard mills are built from the point of view of storage only, without sufficient attention being given to protective features.

In general, waste paper and pulp should be kept cool, dry, and well ventilated.

The storing of waste papers, pulp, roofing rags, etc., presents an ever-present fire risk. For this reason the warehouse should be of as nearly fireproof construction as the available capital will allow. Whatever construction is used, ample sprinkler lines are necessarily if low insurance rates are desired. It is not enough that fireproof materials, as corrugated iron, steel, concrete, etc., be used for the building; the method of storing the stock should be such that the spread of fire will be minimized and the sprinkler system water will be allowed to come into contact with the bales in such a way as to prevent this spread. The piles representing individual consignments, which should in any case be kept separate, from cost finding and inventory considerations, should therefore be kept separated a foot or so, or in separate storage bays. In some cases, it will even be practicable and advisable to use corrugated metal partitions or removable walls, between the piles, to prevent the spread of possible fire as much as possible.

The above measures will go a long way toward the prevention of a repetition of such disastrous paper stock fires as recently occurred in a New Jersey mill. Here, the bales were so closely packed together, that the water from the sprinkler lines and fire hose could not get to the bottom and prevent the spread of the fire at that point.

This fire is thought to have occurred from spontaneous combustion which is particularly liable to occur in the case of mixed papers (as above) and roofing rag stock, because of their dirty nature occasional presence of oil, and low heat conductivity. An explanation of the probable cause of many fires of mysterious origin—probably from spontaneous combustion—is given in Paper for January 29, 1925. This article states that spontaneous combustion cannot occur below 200 degrees centigrade. But above this temperature, if there is vegetable or animal oil present the ferments present in these oils will gradually raise the temperature to about 300 degrees centigrade, when the fiber will burst into flame.

An unusual warehouse construction, but one possessing distinct merits, is that adopted by a large concern making asbestos products. This is probably the largest one-room old paper and rag bin in the world. The walls, 100 feet high, are solid, of high grade fire brick, and are provided at the top with a series of narrow windows operated by draw chains below, for the admittance of fresh air. Beneath the roof, steel I beams run the length of the room and support, as tracks, a large travelling crane also of the I beam type. The bales are put into and removed from, the bin, by this crane. The only illumination provided is by electric lights.

In a multi-story warehouse, nearly all of the vertical space between floors can be filled with stock, leaving only enough space to give the clearance for sprinkler heads required by the Insurance companies. Ample room must be left for trucking, and for spacing between piles, as above noted. The use of wire glass walls is usually not warranted in warehouses on account of expense; but if used, the glass should be carefully checked up to insure that its construction will not cause fires from focusing of the sun's rays.

Protection from water, from all sources, is also very important. If there is a basement, it should be of waterproofed concrete, and sufficiently elevated so that it will not become flooded in case the

mill sewer gets plugged and backs up. This occurred in a bin containing closely packed roofing rags. There was no air circulation; and the water which soaked the bottoms of the bales, in addition to the warmth caused by an adjacent boiler room, caused nearly complete decay of the rags wetted, as well as extremely vile odors.

Water drip through leaky roofs, pipe lines, as condensate, etc., should be watched. The receiving platform or dock should be covered for the same reason, as many times "temporary" storage becomes semi-permanent in nature.

The storage of rags or paper stock for long periods out of doors, unless they are protected by a tight roof, is not recommended. The platform, especially if unprotected, should be of brick or concrete. Decomposition during the summer months is liable to be considerable, if the bales are unprotected. They will probably freeze in winter and either require shredding, or be very wet, when used. In any event, if stored unprotected, the bales should be weighed before placement, as otherwise large errors may be caused in the cost figures because of moisture, or from excessive dryness from a prolonged hot, dry summer.

Mixture with other materials, and contamination, occur mostly in the cases of loose materials such as loose newspapers, "bandage stock," "gasket news," milk bottle cap cuttings, etc. In these cases, absolute segregation, either as to location or by bins, is necessary.

Factors 2, 3, and 4 will be considered in the section "Warehouse Operations." The comparative cost of materials also has a bearing on the amount of money it is economical to spend on Materials Control work. For example, it would not pay to install such an elaborate system for handling only No. 2 Mixed Papers, Dump Stock, etc., as it would expensive materials such as White Shavings, Envelope Clippings, etc., the use of which must be closely controlled.

E. Materials Processing

A discussion of the relation of warehouse design to the processing of the materials after leaving it, necessarily includes consideration of some of the methods of unloading and handling materials into the warehouse and any further treatment they may receive there.

In general, the warehouse should be located next to the beaters and also next to the receiving platform, if stock is received from a railroad, or to the docks, if water transportation is utilized. It is preferable also, to have any central breaking or defibering unit in the same location, on account of the greater ease and convenience of material control to it and of its supervision by the beater engineer. However, since it is cheaper to convey pulp to beaters as slush than by manual labor in trucks, such a unit can be located at any available point on the mill property served by railroad or water transportation.

The question of broke and trimmings disposal may also be involved in the warehouse design and location. If a broke tank or beater is used, the warehouse is not concerned; but if these materials are handled in broke trucks, some space should be left so that several truckloads may accumulate in the warehouse if necessary. The beater room is not a storage space; and broke should be kept from accumulating there as much as possible.

Handling Practice

As suggestive of current practice in the handling of waste papers and pulp in paperboard mills, the following operations are given in some detail as perhaps being representative.

Mill A

This mill uses principally Mixed Papers and News, with some pulp. All materials are received from the railroad on a receiving platform and stored until used on a floor on the same level. As the policy is to not allow bales of waste paper to remain here for more than three months, this storage platform or floor (really integral with the receiving platform) is uncovered. This platform is about 250 feet long, varying in width from 12 to 30 feet.

Four men, in two crews of two men each, do the unloading using ordinary two wheel trucks with an extension of boards to increase the number of bales which may be carried at one load. Such an extended truck will hold five bales of about 150 pounds each.

When bales are to be used, they are trucked to an inclined moving platform conveyor, which takes them to the second floor where they are furnished, without dusting or sorting, to a continuous beater. This conveyor is made up of two heavy transmission chains across which 2 inch square pieces of hard wood are placed.

It has been the experience of this mill that the maintenance cost of this type of cross bar is heavy, due to their being frequently broken by workmen dropping heavy paper stock bales carelessly on them. These are to be replaced by steel bars.

Mill B

Raw material can be received either from lake-going boats, canal boats, motor trucks or cars, direct to the receiving platforms. The mill has two, *seven* cylinder machines with a combined daily output on chip, and set-up box boards, of 100 tons. The beater room, warehouse, and machine room are on the same level, the warehouse being one story. Stock is fed directly to either beaters or a breaker beater, being unloaded and handled, both from the carrier to storage and from storage to beaters, by two wheel trucks and electric trucks.

A force of 40 men are employed in unloading and storing, including 3 scalemen, on three, eight hour tours. Each crew is in charge of an unloading foreman. Four electric truck operators are employed, two on the day tour and the others at night. Ten laborers unload and store on each tour. This mill has found it advisable to employ a rather high class man as foreman, because of the mistakes such a man can avert; so that he will be capable of keeping legible and accurate records and reports; and at times be capable of acting as scale man.

A third mill, during mild weather, opens its paper bales in the stock yard outside the mill, a belt conveyor taking the papers directly to the beaters.

For handling shipments by water, a locomotive crane or similar equipment is very desirable to keep labor costs at a minimum.

In water shipments, it is imperative that the bales be very securely wired, to avoid their opening up when in mid air. One such hoist can unload from 150 to 175 tons per day from a boat, of bales running from 500 to 700 pounds each. A small donkey engine, with wire rope and mast hoist, can handle about 125 tons of the same material; while 100 tons a day is good work for men with hand trucks.

As indicative of the size of warehouses for paper stock, considered as dimensions of building and tons capacity, a large paperboard mill in the Middle West has a stock house, of vitrified brick and reinforced concrete, of 3000 tons capacity, which is 130x130 ft., by 32 ft. high to the roof. The stock is handled by a travelling mono-rail electric crane having access to every part of the room, all of the vertical space to the roof thus not being available for storage purposes.

The next installment in this series will discuss the organization of the warehouse and its operation, from a Cost and Materials Control point of view; and the initial treatment of waste papers.

(*To be continued*)

Dixon Board Mills Buy Mill at Carthage, Ind.

Carthage, Ind., October 26, 1925.—The Dixon Board Mills, Inc., has acquired the plant of the American Paper Products Company at this place. The executive and sales offices of the company are at 5 South Wabash avenue, Chicago, and the officers are Wesley M. Dixon, president; Thomas E. Sellen, secretary, and Edward J. Rainey, superintendent.

Waste Liquors and Gases of the Paper Industry

Survey of the Recent Domestic and Foreign Patent Literature on the Utilization of Waste Liquors and Waste Gases of the Pulp Industry, 1912-1924

By A. Schrohe[1]

Translated, with additions, by Clarence J. West, Chairman Committee on Abstracts and Bibliography, T. A. P. P. I. (Contribution No. 47 of the Committee).

(Continued from last week)

159. 1922. D. R. P. 352,624. Fr. Cössel, Frankfurt a. M. Method of treatment of waste sulphite liquors.

The waste liquor, after it has been neutralized and clarified in the usual way, is evaporated under pressure with simultaneous oxidation, *e.g.*, by drawing a well distributed air stream through the hot liquid, until its volume has been decreased to 20-25 per cent of the original. The concentrated liquor, which may have been used for the preparation of alcohol previous to the concentration, is suitable as a feeding stuff but is better fed with bran, etc.

160. 1922. D. R. P. 353,129. Berlin Dextrin-Fabrik Otto Kutzner, Berlin. Preparation of a product serving as an adhesive as well as a finishing, binding or varnishing agent.

Dark colored waste cellulose liquors (waste sulphite liquors) are mixed with sodium thiosulphate and an acid, such as sulphuric acid. The product possesses high adhesive properties and leaves a light, gummy glistening residue.

161. 1922. D. R. P. 353,200. Dynamit-Akt.-Ges. vormals Alfred Noble and Co., Hamburg and Phokion Naoum, Schlebusch. Preparation of a gelatinous explosive, proof against fire damp.

The explosive is mixed with concentrated waste sulphite liquor (so called cell pitch sirup) in moderate amounts.

162. 1922. D. R. P. 360,337. Carl Sorger, Frankfurt a. M. Preparation of a tanning agent from waste sulphite liquor.

The lime-free concentrated waste sulphite liquor is treated with sufficient sodium chloride and hydrochloric acid or alkali sulphate to completely precipitate the ligninsulphonic acid contained therein as alkali salts. The resulting precipitate is freed from the mother liquor, dissolved in a little water, dialyzed to remove small amounts of crystalline salts and the dialyzed solution concentrated to dryness and dried. The powder prepared in this way contains 44 percent of tannin absorbed by the skin. According to U. S. Patent 1,414,312 (Apr. 25, 1922) the acid mother liquor after the precipitation of the alkali salts of the lignosulphonic acid is used for the preparation of an adhesive. It is neutralized with calcium or sodium carbonate, filtered, the filtrate concentrated until the sodium salt begins to crystallize and again filtered. The thick liquid of 34° Bé forms a honey-like mass.

163. 1922. D. R. P. 361,858. (Addition patent to D. R. P. 353,129 (No. **160**). Dextrin-Fabrik Otto Kutzner, Berlin. Method for the preparation of a product serving as an adhesive as well as a finishing, binding or varnishing agent.

Sulphur containing compounds, which separate colloidal sulphur on decomposition with acid or the like, as sodium thiosulphate and acids (such as oxalic acid) are mixed in the solid form with dried waste cellulose liquor. The bleaching of the waste liquor occurs on mixing the mass with water, that is, when they are used, without giving rise to the odors which result by the application of the method of the original patent. *Cf.* Austrian patents 91,006, 91,007 and 91,008 (1923) (No. **188**).

164. 1922. U. S. 1,415,843. Canadian 221,733. Kr. Mörchin Christiania, Norway. Continuous method for working up waste sulphite liquors.

The waste liquor is first led through a preheater in which the temperature of the liquor is brought up to the desired degree (170-200°) by means of direct or indirect steam heating. From this preheater the hot liquor is by means of a pump or an injector continuously removed into a container which is kept under such high pressure that decomposition will immediately take place. The pressure (17 to 20 kg. per sq. cm.) is kept constant and the solid substances formed together with the mother liquors and gases are continuously removed through an opening in the container to other containers in which the pressure is gradually reduced. The steam evolved may be used in the preheater. The solid products form an excellent fuel or may be used in the manufacture of lignin derivatives.

165. 1922. U. S. 1,431,165. H. S. Levenson, Brooklyn, N. Y. Preparation for an adhesive.

Concentrated waste sulphite liquor and pitch from the distillation of fatty oils, which probably contain olein and palmitin, are mixed.

166. 1922. U. S. 1,440,026. H. A. E. Nilsson. Evaporation of liquids which give off acid containing vapors.

If it is intended to use such vapors as a heating agent, it is necessary that they be freed from their acid content. This is accomplished by passing them through an alkaline liquor (which chemically removes the acid) and then introducing them into the pump.

167. 1922. British 179,151. Zellstofffabrik Waldhof, Waldhof-Mannheim. Preparation of a fertilizer.

Waste sulphite liquor is mixed with a water binding agent, such as calcium or magnesium oxide and to this is added peat dust. The liquor is used in the hot, concentrated state. The resulting mass is pulverized.

168. 1922. French 536,849. H. O. V. Bergström, Sweden. Utilization of waste sulphite liquor.

A waste liquor with solid content of about 10 percent is first freed of a part of its acid content (as sulphuric, acetic or formic acid) either by distillation in a column apparatus or by neutralization with lime or calcium hydroxide. The acid vapors resulting from the distillation are passed into lime water and bound as calcium salts. The precipitate resulting on the neutralization of the waste liquor is filtered. The filtrate is concentrated to half its volume, the vapors being condensed in lime water, whereby the acetic and sulphuric acids are bound as calcium salts. The concentrated filtrate is again partially neutralized with calcium hydroxide and fermented.

169. 1922. French 537,190. Swedish 51,239. Aktiebolaget Cellulosa, Sweden. Oven for the dry distillation of waste liquors and the like. *Cf.* C. A. 18,468.

170. 1922. French 542,027. Charles Schmidt, Paris. Method of tanning.

Animal skins are treated with highly chlorinated products from waste sulphite liquors. The preparation of the tanning agent is by the introduction of chlorine into the concentrated waste liquor. Since the product contains a part of the chlorine in a loosely bound form and the hydrochloric acid which is also formed is detrimental to the leather, there is a suplementary oxidation with nitric acid or with chlorate and hydrochloric acid. In tanning, the skin takes up over 30 per cent of the tanning agent. Further methods are described in French patent 547,359 (1922).

171. 1922. French 547,898. A. Regnouf de Vains, Working up waste cellulose liquors.

The liquor resulting from the preparation of cellulose by alkali is treated with halogens or acids, the resulting precipitate filtered and either used as a fuel or dry distilled.

[1] Papierfabrikant 23, 30-33, 63-65, 89-92, 158-161, 251-253, 284-287, 293-296, 306-307. (1925).

172. 1922. Austrian 88,650. Max Hönig and Walter Fuchs, Brunn. Preparation of a tanning agent from waste sulphite liquor.

The liquor, after complete neutralization of the free and half-bound acid by calcium hydroxide, is treated with an excess of the hydroxide, corresponding to about one percent of the amount of liquor to be worked up and then heated for about one hour. The resulting precipitate is filtered, the solution concentrated to 20-24° Be, and further treated with an acid-forming and insoluble calcium salt, in order to further clarify it and liberate the tannins. In this way the destruction of the organic constituents of the waste liquor is avoided.

173. 1923. D. R. P. 366,714. A. Deppe Söhne and O. Zeitschel, Hamburg-Billbrook. Method for recovering the sulphur from waste sulphite liquors by heating with alkalies or alkaline earths.

The concentrated liquor is mixed with dry alkali or alkaline earth hydroxides, oxides or carbonates and a little water and heated for a short time at higher temperatures.

174. 1923. D.R.P. 367,614. Fritz Spitzer, Berlin. Hardening agent for iron and steel.

The agent consists of mixtures of lignosulphonic acid compounds and resin-like compounds of the waste liquor or the waste liquor of the sulphate and sulphite processes.

175. 1923. D.R.P. 368,111. Erich Opfermann, Munich. Method of utilizing the heat of the fermenting sulphite waste liquors for thermal baths.

The fermenting liquor is circulated through the baths in pipes and then either returned to the fermenting bath or delivered to the distilling apparatus.

176. 1923. D.R.P. 370,077. British 157,907 (1921). E. Pollacsek, Florence. Preparation of a binding medium to be used in the cold for the briquetting of coal, metal wastes, etc., from alkaline waste cellulose liquors.

The waste cellulose liquors are concentrated to the point where, on cooling, they at once solidify. After reaching this point the hot mass is treated, with stirring, with so much mineral oil that a sample, on cooling, remains liquid in the air.

177. 1923. D.R.P. 375,036. Gebr. Körting, A.-G., Hannover-Linden. Combustion of the noxious gases contained in the waste sulphite liquors.

The waste sulphite liquor is lead over a grate fire or heated walls in such a way that the atomizing air as well as the combustion air is heated before entering the spraying nozzle.

178. 1923. D.R.P. 376,271: Holland 3,205 (1919). Swiss 75,240 (1917), Norwegian 28,579 (1918). Arthur Köpflmacher, Vienna. Preparation of a highly active decolorizing charcoal.

Sulphite waste liquor, containing alkali carbonate (also with the simultaneous addition of alkaline earth hydrates and carbonates), is concentrated and the resulting mass is carbonized at a bright red heat with the exclusion of air and the removal of the distillation gases, the resulting decoloring charcoal leached with water, extracted with hydrochloric acid and dried. The alkaline solution is carbonized, filtered and concentrated and used for a following operation.

179. 1923. D.R.P. 380,393. Papierfabrik Perlen, Perlen bei Luzern. Burning aqueous liquids containing combustible substances, especially waste sulphite liquor.

180. 1923. D.R.P. 383,430. Zellstofffabrik Waldhof, Mannheim-Waldhof and Otto Lührs, Mannheim. Clarification of waste sulphite liquors.

After a more or less complete neutralization of the waste sulphite liquor, sedimentation and finally filtration of the calcium salts, a relatively small amount of waste liquor is added so that the desired degree of acidity is obtained. In addition to or in place of the waste liquor, a corresponding amount of inorganic or organic acid may be used. Colloidal turbidities, interfering with the concentration or fermentation, do not result.

181. 1923. D.R.P. 383,905. Chemische Fabrik Blänsdorf und Co., Berlin-Wilmersdorf. Briquette formation from all kinds of fuels, ores, etc, using concentrated waste sulphite liquor as the binding agent.

The briquette material is mixed with the concentrated waste sulphite liquor, or dissolved cell pitch, a water binding agent, such as cement, calcium sulphate, etc., and an aluminium salt to increase the water stability of the waste liquor. Aluminium acetate or formate may be used.

182. 1923. U. S. 1,444,844. K. P. McElroy, Washington, D. C. Emulsions.

Waste sulphite liquors are used with a small amount of soda sludge from petroleum refineries; linseed and other oils may be emulsified for core, road or briquette binders.

183. 1923. U. S. 1,445,602. J. S. Robeson, Permington, N. J., Treating waste sulphite liquors.

Waste sulphite liquors as they come from a digester or storage tank are sprayed into air to effect oxidation and some evaporation with removal of free sulphur dioxide. Calcined magnesite or other suitabe reagent is then added to neutralize acidity and the liquor, freed from any precipitate which forms, is evaporated to 1.26 specific gravity or to dryness. This treatment produces a product of strong adhesive properties, free from such alterations as may occur from undue heating, and adapted for fermentation to produce alcohol.

184. 1923. U. S. 1,469,958. G. A. Richter, Berlin, N. H. Apparatus for recovering waste gases.

Blow pit vapors and gases are conducted in countercurrent contact with cold water through a mass of inert rock or similar contact material to cool the gases and condense vapors. Free unabsorbed sulphur dioxide which has been cooled by the water is recovered and the sulphur dioxide absorbed by the heated water is then removed from it.

185. 1923. U. S. 1,469,960. Canadian 232,746. G. A. Richter and D. H. McMurtrie, Berlin, N. H. Utilization of waste cellulose liquors.

Concentrated waste sulphate liquor is mixed with sulphur and the mixture smelted. Sodium carbonate may be added to the molten effluent to compensate for the loss thereof by the reaction of sulphur with sodium carbonate initially in the spent liquor.

186. 1923. British 204,322. Vereinigte Glanzstoff-Fabriken, A.-G., Elberfeld. Recovery of alkali compounds from soda cellulose residues.

One adds to the sodium carbonate solution, with which the cellulose has been treated, a heavy metal compound, as copper sulphate.

187. 1923. French 558,183. Societe Maoury et Cie. Method for the recovery of the mineral substances and the fuel value of the waste cellulose liquors.

The concentrated or dried waste liquor is mixed with masut and the mixture used as a fuel, whereupon the ash constituents are obtained in a pure state.

188. 1923. Austrian 91,006, and 91,008. Oderberger Chemische Werke, A.-G., Oderberg. Preparation suitable as an adhesive, finishing, binding or varnishing agent.

Waste sulphite liquor is mixed with sulphur-containing compounds which, upon decomposition, yield finely divided sulphur, especially sodium thiosulphate and the decomposition brought about by an acid, such as sulphuric acid. This causes a brightening in the color of the mass. If necessary, the excess of acid may be neutralized with calcium carbonate. According to patent 91,007 waste cellulose liquors in the dry state is mixed with dry sodium thiosulphate and a solid acid, such as oxalic acid; on dissolving the mass in water, there is a bleaching of the waste liquor.

According to 91,008 the waste sulphite liquor is mixed with finely divided mineral colloids, such as clay, talc, zinc sulphide, calcium phosphate and the like, thus bringing about a decrease in the color of the product or the waste liquor is treated with a zinc salt and a sulphite, thus precipitating the zinc sulphide in

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the mixture. The neutral or slightly alkaline product may be used as an adhesive or it may be evaporated to dryness.

189. 1923. Austrian 91,500. A. S. Sulfitkul, Christiania. Preparation of useful organic and inorganic substances from waste sulphite liquor by heating under pressure.

Sulphur dioxide is passed into the autoclave containing the liquor to be treated (without addition of air or oxygen) and the waste liquor is heated to about 170-180° under a pressure of about 20 atmospheres until a part of the sulphur dioxide present is decomposed into sulphur and sulphuric acid, by which the waste liquor is decomposed and the organic components of the liquor are precipitated. The waste gases from the autoclave, which contain some sulphur dioxide, are led into a second autoclave, in order to bring about the decomposition of a new lot of liquor. The waste gas from the autoclave may be mixed with oxygen containing gases and brought to such a temperature that the sulphur in the gas is oxidized to sulphur dioxide.

190. 1923. Swedish 54,200. K. H. A. Melander and J. H. Wallin, Stockholm. Preparation of pyrocatechol and other phenols, as well as fatty acids.

Waste sulphite or soda pulp liquors from wood, straw, or esparto are evaporated to dryness, treated with alkali and calcium oxide and distilled with superheated steam. The black residue is dissolved in water, the filtered solution concentrated and crystallized, whereupon the greater amount of the orgnaic salts separate. The mother liquor, acidified with hydrochloric acid, is again filtered, the filtrate extracted with ether, the ether layer separated and evaporated. The residual oil gives on fractional distillation, pyrocatechol, other phenols and fatty acids, such as acetic acid and homologues.

191. 1923. Swedish 54,922. A/S Garvesto-Extractor (H. B. Landmark), Drammen, Norway. Tanning preparations easily soluble in cold water.

Vegetable tanning extracts are treated with a very concentrated waste sulphite liquor which has been freed from lime and iron, until even the constituents insoluble in cold water go into solution.

192. 1924. D.R.P. 388,924. R. H. McKee, New York. Method of obtaining alcohol from waste sulphite liquors.

It has been found that the early slackening and the cessation of the growth of the yeast and the fermentation in cooled waste sulphite liquors are not due to a specific poisonous action of the free sulphurous acid and the sulphites but to a lack of oxygen in the fermenting solution According to the present method there is a continuous action even in the presence of a considerable amount of free acid. The method is actually carried out with a liquor of such high free sulphurous acid content that the yeast are killed as soon as the oxygen (air) stream is stopped. The method may also be applied to sirups and liquids obtained by the action of sulphurous acid upon cellulose and lignocellulose (Classen method, etc.).

193. 1924. D.R.P. 389,206. Carl G. Schwalbe, Eberswalde. Removal of the obnoxious gases from soda pulp waste gases.

In place of the substances of wood-like nature mentioned in patent 319,594 (chipped wood, sawdust and the like), straw and straw waste may be used with the same result. The waste gases are mixed with oxidizing gases (nitrogen oxides, chlorine, ozone) either before or during the contact with the solid materials or these solid products may be treated with the oxidizing gases or with a solution of the same after the passage of the waste gases.

194. 1924. D.R.P. 389,549. Deutsch-Koloniale Gerb- und Farbstoffgesellschaft m. b. H. Karlsruhe i. B. Method of obtaining a tanning agent from waste sulphite liquors.

The acids present in the liquor (as sulphurous acid, ligno-sulphonic acids, etc.), or their unsaturated acids are transformed into saturated salts by the addition of lime, calcium carbonate or milk of lime; the solution, freed from the precipitate which forms, is then treated with alkali carbonate to transform the calcium salts into alcali salts, and this in turn, is treated with an acid, preferably hydrochloric acid, in an amount sufficient to liberate from 50 to 100 percent of the lignin or lignosulphonic acid.

195. 1924. D.R.P. 392,386. Atomized Products Corporation, New York. Method for the preparation of a solid, non-hydroscopic product from waste sulphite liquor.

The waste liquor, freed from calcium and magnesium in the usual manner, is first sprayed under low pressure into a chamber through which are flowing hot gases, the ratio of the heat of the gases and the content of evaporated water being such that the gases leave the chamber in a saturated condition; thte concentrated liquor from the first chamber is then sprayed under high pressure into a second chamber, through which hot gases are circulating and in which the relation of the heat content of the gases to the water to be evaporated from the waste liquors is such that the gases leave the chamber at nearly the boiling point of water. The solid end-product is quickly removed from the second chamber in order to avoid a further injurious heating. The product is a powder, completely soluble in water and is suitable for tanning, as an adhesive, a fuel, etc.

196. 1924. D.R.P. 394,630. British 200,482 (1923). A. Collas, J. Collas and l'Alfa, Societe Anon. pour la fabrication des Pates de Cellulose, Paris. Treatment of waste liquors resulting from the soda digestion of vegetable fibers.

The waste liquor is treated with a flocculation catalyser, which may be an organic acid, as acetic or oxalic acid, or a salt of these acids, such as potassium acetate. These catalysers liberate the colloidal particles, in whole or in part, and they may be removed simultaneously with the suspended particles by decantation, filtration, contrifugation or cataphoresis. *cf.* British 218,385 (1923). C. A. 18,468; 19,576.

197. 1924. D.R.P. 397,852. Baron Cl. von Reden, Hannover. Briquetting of fuels or ores.

The mixture of the unconcentrated waste sulphite liquor, with gypsum, cement, or the like, is treated with Glauber's salt, or rock salt

198. 1924. D.R.P. 400,661. Erik Hägglund, Abo, Finland. Method of utilizing black liquor.

The sodium acetate solution, practically free from organic substances, is evaporated to dryness and distilled with superheated steam for the recovery of acetone.

199. 1924. D.R P. 401,418. C. F. Cross, London. Preparation of cellulose and lignone compounds from wood and wood-containing raw materials.

The waste liquor obtained by heating with aqueous sulphurous acid is freed of the sulphurous acid, and concentrated or dried.

(To be continued)

Customs Decisions on Paper Imports

WASHINGTON, D. C., November 4, 1925.—Seattle importations of crepe and tissue paper have been found by the Customs Court to be not marked with the name of the country of origin. In this case the Collector claimed as the paper was sold in rolls or packages each package should bear the required marking. The importer claimed the individual sheets could not be marked without injury. The Board of General Appraisors considered the individual packages to be the article of merchandise and upheld the Collector. The Board denied rehearing to importers of coated paper against whom a recent decision had been rendered.

It is understood also that the valuation on French envelope lining paper of light weight has been increased 27½ per cent as was the case in a recent decision involving similar paper from Germany. The usual penalty for under valuation was omitted as the importer was able to show by the record of the case that he had acted in good faith and not with intent to defraud the Government. It is understood that the Import Committee of the American Paper Industry was interested in both of these cases.

Current Paper Trade Literature

Abstracts of Articles and Notes of Papermaking Inventions Compiled by the Committee on Abstracts of Literature of the Technical Association of the Paper Making Industry

CLARENCE J. WEST, CHAIRMAN

Dyes and Dyeing

Alum in Beater Coloring of Sized Paper. W. C. Holmes. Am. Dyestuff Rept. 14, 129-30 (1925). The use of alum with basic, acid and direct dyes in the coloring of sized paper is described.—C. J. W.

Coloring of Paper. E. Belani. Zellstoff U. Papier 5, 47-48 (Feb. 1925). Practical hints on what not to do and what to do in the coloring of paper.—J. L. P.

Influence of Raw Paper Stock on Coloring. G. Blaser. Zellstoff U. Papier 5, 85-86 (Mar. 1925). Summary of an address on the coloring of paper stock.—J. L. P.

Coloring of Cover Paper Stock. Dyestuffs Jan. 1925; Pulp & Paper 23, 318 (Mar. 26, 1925); Paper Mill 49, No. 11, 18 (Mar. 14, 1925). Practical manufacturing hints with a number of formulas for various shades.—A. P.-C.

Coloring of Container Board. I. Ekholm. Paper mill 49, No. 15, 8 (Apr. 11, 1925). Brief discussion of the dyes suitable for this grade.—A. P.-C.

Colored Patterns on Paper. Papierfabrik Koslin. Eng. pat. 229, 546. Color-applying devices are provided between the vats of a multi-cylinder machine, and are mounted so that they may be periodically brought into contact with the sheet and removed from contact with it, so as to give a desired pattern.—A. P.-C.

Aniline Dyes in Paper Making. M. Favier. Pulp & Paper 23, 433-436, 438 (Apr. 23, 1925). Outline of the properties of acid, basic, eosin, direct, sulphur and pigment dyes, with brief notes on the more important dyes of each group.—A. P.-C.

Drying

Paper Drying and Steam Plant Economy. F. C. Farnsworth. Paper Mill 49, 14, 16, 38, 40 (Apr. 25, 1925). Description of the Farnsworth system and of its merits.—A. P.-C.

Drum Suction-Filter Drier. Goy. Wochbl. Papierfabr. 53, 303-306 (Mar. 7, 1925). Description of the new Wolf cell suction-filter drier, with suggested uses in the pulp and paper industries.—J. L. P.

Drying of Pulps for Scientific and Technical Purposes. J. Obermiller and M. Goertz. Z. Angew. Chem. No. 48 (1924); Zellstoff U. Papier 5, 19 (Jan. 1925). 10 to 20 g. samples of pulp are dried in a glass container which is surrounded by an oven to produce a uniform temperature. Dry air is passed through this apparatus. To reduce the moisture content to 0.1 to 0.02 per cent the samples must be exposed for 2 hr. at a temperature of 95 to 100°, and for 3 to 5 hr. at the temperature 85 to 90°.—J. L. P.

Heat Transfer With Especial Reference to the Pulp and Paper Industry. Lassberg. Papierfabr. 23, 132-143 (Mar. 1, 1925). A comprehensive article on the transfer of heat, with especial application to the pulp and paper industry.—J. L. P.

Heat Losses in the Paper Industry and Its Curtailment. Anon. Wochbl. Papierfabr. 56, 494-497 (Apr. 18, 1925). Heat losses attending the cooling of the sulphur gases, and the production and drying of paper are discussed. In Sweden the heat from the driers is used in warming the air of the ventilation system.—J. L. P.

Pulp and Paper Analysis and Testing

Determination of Moisture Content of Plant Fibers and Cellulose. O. H. Weber. Wochbl. Papierfabr. 46, 357-358 (Mar. 21, 1925). Moisture from plant fibers is removed at the ordinary temperature by means of calcium carbide and the acetylene generated is measured indirectly. The fibers are contained in a 300 cc. flask, to which is fitted a 3 hole rubber stopper containing a thermometer, a tube leading to a mitrometer, and a tube with an attached rubber tube through which passes a wire to hold suspended the small beaker of 2 g. calcium carbide (fineness of sand) in the flask. At the proper time the beaker is tipped by the wire and the carbide mixed with the fibers. The reaction is complete in about 10 min.. One-half per cent accuracy is claimed.—J. L. P.

Proposed Standard Method for Testing of Pulp for Strength (Non-Beating Test). E. P. Cameron. Pulp & Paper 23, 250-251 (Mar. 5, 1925). The method is described minutely with a view to eliminating so far as possible all sources of error. A laboratory pulp disintegrator, for reducing the pulp without appreciable beating action, is described.—A. P.-C.

Schopper-Riegler Beater Tester in Practice. Anon. Wochbl. Papierfabr. 56, 488-489 (Apr. 18, 1925). Practical hints on the use of the Schopper-Riegler beating tester.—J. L. P.

Degree of Delignification of Chemical Pulp. Pap. Och. Travarutid. For Finland; Papier 28, 325-326 (Mar. 1925). Outline of the Roschier potassium permanganate method of determining degree of delignification with a comparison of the results with those of Sieber's chlorine number.—A. P.-C.

Unbleached and Easy-Bleaching Pulps. J. Crolard. Mon. Papeterie Francaise 56, 156-168 (Apr. 1, 1925). The lignin value and chlorine value of different grades of sulphite, soda and sulphate pulps are tabulated, showing the change with increase in the degree of delignification, from which can be deduced the quality of a commercial sample.—A. P.-C.

Simple Method for Determining the Sedimentation-Volume of Pulps. C. G. Schwalbe and G. A. Feldtmann. Wochbl. Papierfabr. 56, 251-256 (Feb. 28, 1925). Hard, dried pulp samples are disintegrated by placing them in glass flasks, containing glass beads and hot or cold water, and shaking the mixture mechanically. Pulpboard may be disintegrated by treatment with a solution of sodium hydroxide (up to 5 per cent). A 2 hr. agitation with 1 per cent sodium acetate solution and 1 per cent acetic acid yields good results. The suggested test is as follows: 0.4 g. of coarse, air dry sample is placed in a 300 cc. wide-mouth flask, the bottom of which is covered with glass beads. 100 cc. soft water and 2 cc. glacial acetic acid are added. The apparatus and solution should be free from all traces of grease and oil. After 2 hr. shaking in a machine, the suspension is transferred to a glass-stoppered, 500 cc. mixing cylinder, which has been thoroughly cleaned with chromic-sulphuric acid mixture. The flask is washed with water till free from fibers and sufficient water added to the cylinder to make exactly 500 cc. Three drops of a 50 per cent commercial Turkey red oil are added and the cylinder vigorously shaken by hand. Then it is stirred by a glass rod and the liquid given a whirling motion. Exactly 45 min. after stirring, the height of the meniscus is read. This is made easier by the presence of the oil. The volume designated as the sedimentation-volume is that occupied by 1 g. of absolutely dry pulp after a 45 min. period of settling. The oven-dry weight of the sample in the cylinder is determined. A series of experiments showed that after 45 min. the maximum settling was obtained. Change of temperature produced a negligible change in the sedimentation-volume. Pulps opened up in a beater gave different values compared with the 2 per cent acetic acid treatment.—J. L. P.

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Section of the

COST ASSOCIATION OF THE PAPER INDUSTRY

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Conducted by THOS. J. BURKE, C.A., Sec-Treas

Some Thoughts on Modern Tendencies in Accounting Practice*

By Herbert C. Freeman

The article by Professor McKinsey in a recent issue of the Journal of Accountancy entitled "Modern Tendencies in Accounting Practice" draws attention to certain developments which have come within comparatively recent years and which promise to exercise so profound an effect upon the practice of public accounting that it is well to pause a moment to consider to what extent they may be inimical to the best interests of the profession.

Prof. McKinsey sounds a note of warning to the would-be industrial engineer who specializes in everything. As to tendencies in other directions, however—tendencies affecting the man who frankly holds out as a public accountant—the impression gained from the article is that of general acquiescence in, if not definite approval of, the course of events. The purpose of the present paper, therefore, is to inquire whether there is not a question of practical business welfare involved, apart from any consideration of professional propriety, in certain of the tendencies to which Professor McKinsey refers.

Movement Not Necessarily Progress

Movement in any direction is not necessarily progress. There must be some fundamental definitions, some enunciation of principles to be adhered to and objects to be attained, before progress can be measured, before even motion can be seen to be progress toward or retrogression from the thing desired. Or, if it be felt that this idea presupposes a condition of the business world altogether too static to be contemplated in these modern times, then it is necessary to consider how close to shore it is safe for any profession to come with the incoming tide without undue risk of being left high and dry when the turn comes.

Let us endeavor to state certain premises—not necessarily principles or articles of faith, but points of attack upon which the arguments advanced in this paper will be predicated. If these premises are false, then the argument falls to the ground, but if they are true, or contain the elements of truth, they will at least serve as the basis for discussion.

The present writer is of opinion:

First, that the function of the public accountant which differentiates him most sharply from any other profession or calling is the function of auditor.

Second, that the diversification of investment and the ownership of business organizations by large numbers of investors not directly active in management is a permanent feature of modern industrial financing.

Third, that the investment banker will find it increasingly desirable to present prospective investors with audited statements of financial condition and earnings of properties to be financed.

Fourth, that the corporation laws of all progressive states, if not an inter-state corporation law of the federal government, will before long make it mandatory for corporations to submit to their stockholders regular accounts verified by auditors elected by the stockholders themselves.

Fifth, that the attitude of the auditor must of necessity be that of an independent critic, whose mind is not influenced by considerations of management or policy as affecting the individual business subject to audit.

Those Who Best Serve

It would therefore appear that they best serve the interests of the profession, and ultimately of themselves, who adhere closest to the practice of accounting and auditing in the accepted definition of the terms.

To justify this statement it is necessary to consider the possibilities which may arise from a development of the profession along lines other than those indicated.

The profession is one which attracts men of a type of mind fitting them for many of the most important executive positions in the business world today. Its practice brings these men into intimate contact with business problems of every kind and into close touch with men of affairs of every type engaged in the solution of these problems. The insight thus gained into the fundamentals of business administration is of incalculable value in the intelligent direction of audits and investigations and in the designing of methods of accounting and budgetary and statistical control. Is the application of this knowledge to stop there or is it to be put to the uses which it would so well serve if the accountant were given the responsibilities of management? That is one of the serious questions confronting the profession today.

It would seem to the writer that as soon as the accountant in any given case assumes the responsibility of participating in the management of a business he disqualifies himself from simultaneously acting as auditor or public accountant for that business. Executive responsibility involves responsibility for results, and the results, favorable or otherwise, are of necessity reflected in the accounts which the auditor is called upon to certify. The determination of policies, the selection of men to put them into effect, the expansion of plant facilities, the decision to accumulate stocks of merchandise or to get short—all these may be mat-

* From Journal of Accountancy.

ters upon which the accountant is competent to advise; but as soon as the terms of engagement call for the rendering of such service he ceases for the purposes of that particular case to be a public accountant.

If, therefore, the public accountant who acts as auditor of a company is engaged on a basis which calls for his keeping in more or less constant touch with its affairs as a consultant, his services must be restricted to such as contribute to the maintenance of proper budgetary, statistical, costing and accounting records and control, to the establishment of methods of internal audit commensurate with the magnitude and complexities of the business and to the verification by means of his independent audit of the accounts as finally developed. In connection with his audit it is, of course, proper for him to interpret the significance of the accounts to the executive officers. He may, in fact, do practically all the things that a comptroller should do for the company, except share the responsibility for policies, personnel and management.

Runs Danger of Losing Status

Unless he draws the line, and a very definite line, at that point, he runs the real danger of losing his status as a critic and thus of failing properly to perform his function as an auditor; or, if he be one of those exceptional men who can in fact criticize his own work (and such men are so rare that they were not even specifically mentioned in the Beatitudes), he runs no less serious danger of *appearing* to outsiders to have forfeited his power to criticize impartially in that particular case.

A very wise banker in New York, whose every step has been taken with courage and yet with the most scrupulous observance of the proprieties called for in financial transactions of magnitude, has remarked more than once that it is of chief importance to do a thing right, but the next most important thing is not even to seem to do it wrong.

To some men the work of an auditor does not appear to be sufficiently creative. The application of native ability and acquired knowledge to the scrutiny of past history does not impress them with its true value in the economic and financial fabric of society. Some such men are to be found within the ranks of the profession. Some of these men may have the ability, but they have not the temperament required for the Simon-pure accountant and auditor. Others may be temperamentally fitted for professional life but may chafe at what they conceive to be the slowness with which recognition is coming to the practice of accountancy as one of the pillars of the economic structure. The day to them seems far distant when the public accountant and auditor will really come into his own. If they restrict themselves to working for the "invisible third party" in financial affairs they feel that the procession is passing them by. Themselves not altogether angels, they see others, not altogether fools, rushing in and collecting very fine fees for work of an extra-professional character—the work of efficiency experts, business engineers, et id genus omne. No wonder that at times the cry goes up, "How long?"

It is fitting to consider, therefore, whether the accountant cannot properly serve the business community in two capacities. Toward one set of clients may he not maintain the disinterested and impartial attitude of the professional auditor, while permitting himself to be drawn into executive or directorial relationships toward other clients, recognizing that in these latter cases he must be content to see some other of his colleagues in the profession serve as auditor?

The Situation in Great Britain

If we turn for an answer to Great Britain, where accountancy has been established as a profession much longer than in this country and in a much more official manner, we may conclude that he can. Members of the profession in Great Britain serve as directors, receivers, receivers and managers, trustees, assignees, secretaries pro tem, of newly created companies,—in short in nearly every kind of administrative and fiduciary capacity, while simultaneously acting for other companies and businesses as duly elected auditors under a system of legislative provisions and judicial procedure holding them to the strictest accountability for their acts as auditors. Their appointment to some of these positions is made as a matter of preference because of the fact that they are accountants; in others, more particularly in the cases of directorships and receiverships, the personal ability and experience of the individual is what counts.

To reason from this, however, that the same condition is possible or desirable in this country may involve a fallacy. There are many fundamental differences between the business and financial structure in Great Britain and in this country, and even if this were not so, the vast difference between the status of the profession of accountancy there and here would be sufficient to call for a consideration of the conditions here on an entirely independent basis, free from any analogy with conditions in Great Britain.

It is hardly necessary to go further than to recall to mind the fact that, under the British companies acts, auditors are elected by the stockholders, that they have absolute freedom of action in reporting directly to the stockholders at the annual meeting and that if it is proposed for any reason not to re-elect the same auditors, adequate notice of the fact in advance of the annual meeting must be given to the stockholders. These provisions alone, coupled with the fact that the accounts of every company must be audited, have established the profession there upon a foundation of independence as a matter of accepted fact, while in this country this independence of the profession has had to be created by the integrity and steadfastness of purpose of its members and of the organizations which they have formed.

Has Not Fully Found Itself

Accountancy, then, has not fully "found" itself in this country. It is not firmly established. As usual, the enlightened action of individuals is considerably in advance of legislative action. And until full recognition is gained, the position of the accountant will frequently be misunderstood, even by those to whose greatest interest it is to see the value of the independent auditor fully appreciated.

Such misunderstandings must inevitably result most frequently if the accountant is found by his friends in positions in which they do not expect to see him. If it is admitted that the accountant who enters into the administration of a business is disqualified as auditor of that business, then to what extent can he get involved in the administration of a number of businesses before he becomes, in the minds of the people who really matter, disqualified as auditor of *any* business? This may sound metaphysical but the psychology of it is unmistakable. If accountants seek recognition of an official character, established by statute, they are best working toward that end if they stand four-square on their position as accountants. They do not improve their chances of being accepted as a distinct class in the business community, vested with quasi-judicial functions, if they are known in point of fact to have affiliations of a closer character in certain directions which render them, in their turn, more or less dependent cogs in the economic machine.

Should Emphasize Distinction

To return, then, to the first postulate stated in this article, it would appear that public accountants should seek to emphasize the distinction which marks the profession to which they belong and in this manner to insure its being accorded the position which it should properly enjoy. They should look askance at engagements which lead them into the executive field or those which charge them with the responsibilities of administration, until the status of the profession has been clearly established by legislative action. That clearly is the line of progress, and by-paths are apt to lead into the wilderness.

How Can Cost Work be Simplified Without Impairing Accuracy

By F. H. Corregan, General Electric Co., Schenectady, N. Y.

It would be desirable, at the outset, to have a common understanding of the meaning of the term "costs," and of the importance of accuracy. For the purpose of this discussion the term "costs" comprehends all tabulations of financial data, compilations of the costs of individual products, statements of expenses, etc., required for the administration and control of the various activities of a business, including selling, engineering, manufacturing and incidental functions.

Purposes for Which Costs Are Used

The question of accuracy involves a consideration of the purposes for which costs are used. These are three, in general:

1—As a basis for determining selling prices, directing and controlling selling activities, and regulating commercial policies.

2—As a means of controlling expenditures and directing and controlling productive activities.

3—For the purpose of costing output and shipments, and relieving inventory accounts.

Accuracy is extremely important in the case of cost data used as a basis for selling prices and commercial policies. Upon it depends, to a large extent, the success or failure of an enterprise. If, as a consequence of incorrect costs, selling prices are too high, intangible, and often direct losses may result because of inability to accept business which would in fact be profitable. On the other hand, selling prices which are lower than they should be may lead to securing orders which result in a direct loss.

Effect May Be Far Reaching

In either case, the effect is apt to be far reaching. In many instances, the occasion for quoting a price arises only after considerable sales effort, demonstrating the merits of the products and arousing the customer's interest therein. If then, because of inaccurate cost data, the price quoted is higher than would be necessary to yield a fair net margin, the business may be lost and the selling effort and expense will have been in vain. Often the effect extends beyond an individual transaction. This occurs when products are of such a nature that the customer considers it advisable, and sometimes essential, to obtain additional requirements from the same source of supply. An illustrative case is that of a customer, who, having purchased one piece of apparatus—engine, machine tool or electrical apparatus—is in need of another. The tendency would be to duplicate the first one, with a view to standardization of equipment and to preclude the necessity of carrying repair or renewal parts for two makes. Again, in the case of accessories which are incorporated in or affixed to the products of the customer. Often changes are necessary to permit of the adaptation of the accessories. Once a customer has made these changes, he is disinclined to modify his product again to permit of the use of a slightly different type. This situation is found frequently in the automobile industry. Furthermore, the problem of supplying renewal parts of accessories is an important factor. If a customer changes the make of accessories frequently, he is confronted with the necessity of either stocking and cataloging renewal parts for each make so as to service his customers promptly, or of imposing upon the latter the difficulties, confusion and delay of determining from whom parts may be obtained. Because of these and other factors, the effect of an unreasonably high price due to inaccurate costing may be to delay for several years the opportunity of again interesting a customer.

The effect of quoting unreasonably low prices is sometimes even more harmful, because of the possible effect upon the level of prices for an industry as a whole. Take the case of a manufacturer who sells to his customer at unreasonably low prices because based upon incorrect costs, due for example, to failure to include proper depreciation charges. Other manufacturers may be forced to quote correspondingly lower prices to meet competition. A price level then becomes established which it is difficult later to raise.

The foregoing cases emphasized the importance of accuracy in cost data upon which to base selling prices. Commercial policies, also, often are contingent upon costs. The policy to be followed with respect to allowing special discounts for quantity purchases affords a good illustration. Fundamentally, such discounts should extend to customers the economies made possible by reason of their purchasing relatively larger quantities. The problem of determining the effect upon costs is a complicated one, and involves a consideration of such questions as:

1—Shall discounts apply to individual transactions or to aggregate purchases during a fixed period?

2—Shall they apply to purchases of individual products or to mixed purchases?

3—Shall the same schedules of discounts be offered to all classes of customers?

Obviously, an intelligent and safe policy can be decided upon only if the circumstances incidental to each class of transaction and their effect upon costs are accurately determined.

Accuracy Very Important

Accuracy is very important, also, in cost data used as a means of controlling all classes of expenditures, and as a basis for manufacturing policies. The effective control of expenditure is vital. The income from a given volume of output, except in the case of cost-plus contracts, is usually limited to the selling price fixed in advance of actual manufacture. If the expenditures in the production of the output and in the incidental functions exceed the amounts provided for in the selling prices, profits will be lower than anticipated or even a loss may be sustained. The possibility of excessive expenditures is ever present because of circumstances and conditions, oftentimes unforeseen, which may arise in the course of production. It is essential, therefore, to have current cost data as a means of checking the amounts expended and these data must be accurate. If these data indicate that expenditures are lower than they actually are, consequent failure to take drastic action may lead to future grief. Errors on the other side may lead to action which might be detrimental to the best interests, such as substitutions, changes in labor rates, curtailment of activities which otherwise would be carried forward with ultimate benefits.

Influence on Manufacturing Policies

Manufacturing policies are often directly dependent upon cost facts. Such policies may have reference to the continuity of employment of labor; the economical units of purchase and production; the provision of manufacturing facilities, the types to be selected and the arrangement thereof, etc. The importance of such policies and their bearing upon the financial results dictate the need for extreme accuracy in the determination of the cost data upon which they are based.

The importance of correctly stating the values of inventories in the balance sheet is not to be belittled, and these values are contingent in part upon the accuracy with which output and shipments are costed. There are other factors, however, which have a bearing upon the current statement of such valuations. Changes in market

* From N. A. C. A. Bulletin.

prices of materials cannot ordinarily be taken into account immediately, and the effect of such changes extends, of course, to the value of work-in-process and finished goods. It is usually impracticable to record, as they occur, the reductions in the value of inventories due to the inactivity and obsolescence of the merchandise. Losses due to leaks, breakage and shortages occur from day to day which cannot be identified and recorded. These factors and others give rise to discrepancies in inventories, which become apparent, and can be taken into account only when a physical count and revaluation of the merchandise is made. Interim adjustments, with a view to keeping the accounts in accord with current facts, should, of course, in so far as may be practicable, be made as the need for them becomes apparent. Despite the best efforts and perhaps considerable expense, discrepancies will arise. It seems reasonable under the circumstances, that the requirements of accuracy, in relieving the inventories of output and shipments, should be somewhat less stringent than for commercial purposes and for control of expenditures. In other words, for current inventory valuations a practicable degree of accuracy should suffice.

Results Determined More Frequently

Another purpose of costing shipments is the determination of profit and loss results at more frequent intervals than often would be possible if based upon physical inventories. For this purpose, also, a practicable degree of accuracy should suffice. At best, interim profit and loss statements are but a general indication of results and are not to be taken too literally. They are subject to modification because of inventory discrepancies, and for short periods may not be true indications, due to the lag between changes in costs and selling prices. To illustrate, let us assume that selling prices are revised as of January 1, and that allowances are made for anticipated increases in market prices of commodities or in labor rates. Products may be sold and billed at the new prices which were manufactured from materials purchased before the increase in prices thereof became effective, or which were partly or entirely processed before the change in labor rates occurred. Under such circumstances the profit and loss results for a short period are not truly indicative. Then, too, the contra-condition of current selling prices relatively lower than those of materials or rates of labor frequently occurs.

Summarizing the foregoing, extremely accurate cost data are essential for the purpose of fixing selling prices; as a basis for commercial policies; and also for controlling expenditures. A practicable degree of accuracy is sufficient for the purpose of costing output and shipments.

Somewhat different data are required for each purpose. Costs (total costs) upon which selling prices are based involve, to a greater or lesser degree, a factor of estimate. This is true either because they relate to new products not previously manufactured or because allowance must be made for anticipated changes in material prices or labor rates. For this reason such costs may be of little value for other purposes.

Total Costs of Little Value

Total costs, i. e., the costs of production plus commercial and other expenses, including such factors as spoilage losses, etc., are of comparatively little value for the purpose of controlling expenditures; they do not permit of a sufficiently detailed visualization of activities. For this purpose the material and direct labor elements per unit should be dealt with separately and should often be shown in detail according to operations and component parts. The expense elements per unit are of little value as a basis of control. These items must be dealt with in the aggregate and gauged by total direct labor expenditures, by hours, or by some other standard representing the extent of the activities which occasion the expense.

Total costs are required for costing shipments, but they may differ from those used for commercial purposes, because based upon actual prices of materials and labor and not involving the factor of estimating market trends.

The variety of cost data required for all purposes gives rise to the possibility of a complicated and very expensive system of records, unless every effort towards simplicity is constantly made. Furthermore, an elaborate and complex system usually fails to accomplish effectively the purposes for which it was designed. How best results may be obtained with the greatest simplicity and with a minimum of expense is a difficult problem, the solution of which requires an intimate knowledge of the circumstances affecting each case, sound judgment, and a close cooperation between the commercial, manufacturing, and engineering departments and the cost department. There are, however, certain fundamental principles to be borne in mind.

An Illustration

One fact which will serve to illustrate what is meant by the above statement is that selling prices for a line of products varying in size, finish, etc., are not always determined by precise calculation, i. e., by adding a definite margin of profit to actual total cost. There are a number of factors, to be considered. Prices of products similar in nature often must be basically uniform, according to their service value, irrespective of differences in cost. Let us assume, for example, that the standard color of an automobile selling for $2,000 is black and that there is a fairly good demand for cars painted red. Because of the interruption of regular production and other delays and difficulties incidental to producing the off-standard cars, the actual difference in cost may be $200. If $2500 were asked for the red car, the chances are that the prospective purchaser would decide on another make. Again, let us assume that the prices of standard motors of 7½ and 10 horsepower capacity are $200 and $250 respectively, and that a prospective purchaser requires a motor capable of developing 9 horsepower, the actual ocst of which, because of its off-standard capacity, is $100 more than the 7½ horsepower motor, and $50 more than the 10 horsepower machine.

Simplifying Cost Work

The principle of basic uniformity in prices usually results in the selection of a particular type, size, gauge, etc., of product as a standard with respect to which the prices for similar products are fixed, maintaining a reasonable scale of differentials or gradations. When this policy is pursued the cost work may be simplified and minimized if efforts are devoted to the determination of the costs of the basic or representative products. Changes in these costs are the guide for adjusting selling prices for the while line. Of course, the actual costs of each type should be compiled from time to time, and the variations from the standard verified, but the latter data are usually not required as frequently as the costs of the standards.

An effective control of expenditures for material and labor can oftentimes be accomplished through the medium of one or a few representative types of products. This is possible because whatever circumstances or conditions affect the representative type of a line will have a bearing on other types. Furthermore, the remedies applied in the case of the standards will ordinarily be extended to the whole line. Oftentimes an effective control of expenditures relating to several lines which are slightly different can be had by selecting the most representative unit of the several types as a standard and then dealing with only the differences in form, construction, or finish between the standard and the other types.

Must Deal With Total of Expense

As previously stated, control of manufacturing and other expenses cannot be very well accomplished with data concerning the expense per unit. It is necessary to deal with the total of each class of expense and its relation to some standard of service received. The control can be simplified if, instead of analyzing the

expenditures for each period, budgets are prepared for various volumes of production, etc., and the actual expenditures are compared with the predetermined or estimated amounts and are expressed as ratios of attainment, that is, the percentages of the expenditures to the budget.

The practicable degree of accuracy can be attained in the costing of shipments by basing the costs upon representative types of products. This practice necessitates the determination of a schedule of relative percentages or amounts. These percentages will represent the differences between the total costs (in some cases by elements) of the standards and of the other types. Changes in costs can be more readily applied throughout a line if percentage differentials are used. Thus, if the cost of a standard be $1.00, and of another type $1.20, the shipments of the latter can be priced at the cost of the standard plus 20%. Then, if material prices or labor rates change, only the cost of the standard need be revised. Of course, care must be exercised in adopting a scheme of differentials, to provide for variations which may arise due to a disproportionate effect of changes in material prices, labor rates, or amounts of expense per unit.

When a job or order cost system is used, it is sometimes unnecessary to compile detail cost for the purpose of costing shipments. The total cost of such a job or lot may be used.

Oftentimes, when a variety of products is manufactured which pass through different processes, it is necessary to differentiate in the expense applicable to each type. One type may be made very largely with the aid of machinery and another require the use of only bench facilities. Ordinarily the overhead applicable to the first product will be higher because of depreciation, power and other changes. For the purpose of fixing selling prices, proper differentiation in the expense applicable to each type must, of course, be made. However, if the quantities of each class shipped bear a uniform relation to each other, for purposes of accounting and costing shipments, a composite or weighted rate of expense may be used. For illustration, if the rates of expense for two lines of products are 100% and 160% of direct labor, and the relation of shipments is quite uniformly 2 to 1, respectively, a composite rate of 120 per cent may be used (1-3 of 200 per cent plus 160 per cent).

In some cases, when standard products are made, it is unnecessary to cost each shipment. Rather, the total shipments during a week or month may be analyzed according to the quantities of each class of products, and the totals of each class during the period costed at one time.

Possibilities Almost Unlimited

The possibilities of simplification which have been suggested are not by any means the only ones nor are they applicable in every case. They are, it is hoped, of value in suggesting what may be done if the problem of cost determination is considered in a practical way. There are limits to the amounts which may be spent for such work, so that if more detailed—often merely historical—compilations are avoided or obviated there will be more time to devote to cost data that will serve to accomplish worthwhile results. The opportunity for this is usually big and the possibilities almost unlimited.

Good Progress on Backus Mill

Work is progressing favorably in the new paper mill which is being erected by the E. W. Backus interests at Fort Frances, Ont. Workmen are now excavating for the new train shed and the grading for the switch tracks north and west of the mill site. The new mill, which will parallel the old one to the east, will be the same length and 75 feet in width. It is expected to get the foundations laid and all excavation work finished before the heavy winter frost impedes progress. The new mill will be built up from the present level of the old mill foundation. Four carloads of piling were placed on the ground lately. These are for the foundation of the plant, and the big pile driver is now completed for the driving of these.

Cost and Technical Men Meet at Kalamazoo

A joint meeting and Banquet of the Cost and Technical men of Kalamazoo Valley was held at the Park American Hotel, Kalamazoo, Michigan, on Monday evening, October 26.

The first after-dinner speaker was Homer Oliver of the Allied Paper Mills, Kalamazoo. His subject was "Co-operation between Cost and Technical Departments." Mr. Oliver brought out the need of Technical Department in arriving at correct cost and how they worked together in arriving at beater cost and then in turn the complete cost of the Grades of Paper. He, also, explained how the Cost Department was used by the Technical Department.

The second speaker was Fred Clark of the Hawthorne Paper Company, Kalamazoo, Mich., speaking on "Handling and Costing Raw Material." Mr. Clark handled his subject very nicely by use of two large charts, one for rags and the other for old paper. The rag chart showed how the rags should be weighed after dusting. The manner of cooking was explained, how necessary it was to know the temperature of the rotary at all times during the cook. Many other very interesting points about costing and handling rags were brought out by Mr. Clark and in the discussion that followed.

The second part of the address was in regard to handling and costing old paper. The different parts of the process were explained and some very interesting and new things were brought out.

There was an attendance of about 25, the following being among those present:—G. T. Ingling, Kalamazoo Paper Company; Fred Clark, Hawthorne Paper Company; P. H. Gideon and F. C. Stamm, Bryant Paper Company; Harold F. Dewey and R. G. Chew, Lee Paper Company, Vicksburg; Harry C. Bradford, Rex Paper Company; F. L. Brown, F. C. Jenner and J. C. Handy, Michigan Paper Company, Plainwell, Mich.; Allan Milham and Elbert G. Milham, Bryant Paper Company; N. J. Cowie, Hawthorne Paper Company; John G. Ruinveld, Rex Paper Company; W. Everett Pancoast, Phillip E. Jakway and W. H. Oliver, Allied Paper Mills; Frank Libby, E. Frank Whittington, Amasa Brown, Thos. W. Peck and R. Hayward, Kalamazoo Veg. Parchment Company, W. F. Goldsmith, Hawthorne Paper Company.

The next meeting will be held on November 28 or 30. The Cost and Technical men will visit the mills in Plainwell and Otsego in the afternoon and the Banquet will be held at Plainwell. The after-dinner speaker will be Fred C. Stamm of Bryant Paper Company, subject "Steam Power Costs."

Market for Waxed Paper in China

WASHINGTON, D. C., October 21, 1925.—Up to the present imports of waxed paper from the United States into Hong Kong have been relatively unimportant, according to a report to the Paper Division of the Department of Commerce from American Consul General Tredwell.

While the superiority of the American product is acknowledged its relatively high price when compared with European papers has thrown this trade to Sweden, Norway, Germany and England. It is believed that if American manufacturers could offer a waxed paper more nearly competitive in price with European papers there would be a growing participation of such firms in this trade. While the demand for this class of paper is comparatively slight, it has been increasing steadily since Chinese firms have begun to use waxed and similar papers as a wrapper for sweets and candies.

Great Lakes Paper Corp. Incorporates

The Great Lakes Paper Corporation of Rochester, N. Y., has incorporated to deal in paper mills, 3,000 shares of stock, of which 2,000 shares are common and 1,000 shares, par value of 100 each. The directors are Robert B. Wallace, Charles H. Monaghan and William D. Holmes, all of Rochester, N. Y.

Imports of Paper and Paper Stock

NEW YORK, BOSTON, PHILADELPHIA AND OTHER PORTS

NEW YORK IMPORTS

WEEK ENDING OCTOBER 31, 1925

SUMMARY

News Print .....1288 rolls, 153 bls.
Wall Paper .....22 cs., 44 bls., 187 rolls
Paper Hangings .....43 bls
Hanging Stock .....1065 rolls
Printing Paper .....583 cs., 112 bls., 80 rolls
Colored Paper .....10 cs.
Wrapping Paper..21 cs., 2 rolls, 137 bls., 10 bdls.
Packing Paper .....46 cs.
Tissue Paper .....30 cs.
Filler Paper .....3 cs.
Fancy Paper .....4 cs.
Writing Paper .....2 cs.
Cellophane Paper .....8 cs.
Silk Paper .....9 cs.
Decalcomania Paper .....13 cs.
Transfer Paper .....5 cs.
Baryta Coated Paper .....75 cs.
Surface Coated Paper .....107 cs.
Basic Paper .....52 cs.
Straw Board .....130 rolls
Tissue Paper and Envelopes .....3 cs.
Purple Paper .....2 cs.
Miscellaneous Paper .....70 cs., 91 rolls

WALL PAPER

A. C. Dodman, Jr., Inc., Lapland, Antwerp, 1 cs.

A. C. Dodman, Jr., Inc., Lapland, Antwerp, 21 bls.

A. C. Dodman, Jr., Inc., Mauretania, Southampton, 13 cs.

A. C. Dodman, Jr., Inc., Berengaria, Southampton, 2 cs.

A. C. Dodman, Jr., Inc., Berengaria, Southampton, 21 bls.

Hudson Forwarding & Shipping Co., Berengaria, Southampton, 6 cs.

Janeway & Carpender, Gustavsholm, Gothenburg, 187 rolls.

F. J. Emmerich, Scythia, Liverpool, 2 bls.

PAPER HANGINGS

A. C. Dodman, Jr., Inc., Scythia, Liverpool, 43 bls.

HANGING STOCK

F. & R. Trading Corp., Veendam, Rotterdam, 542 rolls.

F. & R. Trading Corp., Lapland, Antwerp, 523 rolls.

NEWS PRINT

Maurice O'Meara Co., Gustavsholm, Kotka, 53 bls.

Irving Bank Columbia Trust Co., Gustavsholm, Kotka, 100 bls.

Irving Bank Columbia Trust Co., Gustavsholm, Kotka, 826 rolls.

Irving Bank Columbia Trust Co., Mount Clay, Hamburg, 462 rolls.

PRINTING PAPER

P. Puttman, Lapland, Antwerp, 4 cases.

Maurice O'Meara Co., Gustavsholm, Kotka, 579 cs.

Maurice O'Meara Co., Gustavsholm, Kotka, 112 bls.

Maurice O'Meara Co., Gustavsholm, Kotka, 74 rolls.

H. Reeve Angel & Co., Inc., Gustavsholm, Kotka, 6 rolls.

COLORED PAPER

C. W. Williams Co., Lapland, Antwerp, 4 cs.

H. D. Catty & Co., Mount Clay, Hamburg, 3 cs.

Hensel Bruckman & Lorbacker, Mount Clay, Hamburg, 3 cs.

WRAPPING PAPER

Roberts Cushman Co., Conte Rosso, Geneva, 3 cs.

F. C. Strype, Lapland, Antwerp, 6 cs., 2 rolls.

F. C. Strype, Ala, Rotterdam, 187 bls.

Kolesch & Co., Ala, Rotterdam, 12 cs.

Brown Bros. Co., Mount Clay, Hamburg, 50 bls.

Blaunett Wiley Paper Mfg. Co., Tuscania, Glasgow, 10 bls.

PACKING PAPER

F. C. Strype, Veendam, Rotterdam, 12 cs.

International Forwarding Co., Veendam, Rotterdam, 18 cs.

F. L. Kraemer Co., Mt. Clay, Hamburg, 16 cs.

TISSUE PAPER

J. C. Robold & Co., Scythia, Liverpool, 12 cs.

Baldwin Universal Co., Scythia, Liverpool, 18 cs.

FILTER PAPER

Zinkeisen & Co., Mount Clay, Hamburg, 3 cs.

FANCY PAPER

Whiting & Patterson Co., Inc., Mauretania, Southampton, 4 cs.

WRITING PAPER

Bernard Judae & Co., Berengaria, Southampton, 2 cs.

CELLOPHANE PAPER

Du Pont Cellophane Co., Berengaria, Southampton, 8 cs.

SILK PAPER

S. Gilbert, Veendam, Rotterdam, 9 cs.

DECALCOMANIA PAPER

C. W. Sellers, Columbus, Bremen, 13 cs.

TRANSFER PAPER

F. L. Kraemer & Co., Columbus, Bremen, 5 cs.

BARYTA COATED PAPER

Globe Shipping Co., Columbus, Bremen, 75 cs.

SURFACE COATED PAPER

P. C. Zuhlke, Lapland, Antwerp, 79 cs.

Gevaert Co. of America, Lapland, Antwerp, 28 cs.

BASIC PAPER

Globe Shipping Co., Lapland, Antwerp, 52 cs.

STRAWBOARD

A. Vuyk, Veendam, Rotterdam, 130 rolls.

TISSUE PAPER AND ENVELOPES

J. B. Mast & Co., Conte Rosso, Genoa, 3 cs.

PURPLE PAPER

Brabant Needle Co., Scythia, Liverpool, 2 cs.

MISCELLANEOUS PAPER

Titan Shipping Co., Berengaria, Southampton, 35 cs.

K. H. Schmidt, Veendam, Rotterdam, 4 cs.

P. C. Zuhlke, Lapland, Antwerp, 29 cs.

P. H. Petry Co., Mount Clay, Hamburg, 2 cs.

C. G. Keferstein, Mount Clay, Hamburg, 91 rolls.

RAGS, BAGGINGS, ETC.

A. W. Fenton, Inc., P. Gori, Genoa, 365 bls. rags.

E. J. Keller Co., Inc., Veendam, Rotterdam, 89 bls. rags.

American Woolstock Corp., Veendam, Rotterdam, 154 bls. paper stock.

State Bank, Veendam, Rotterdam, 60 bls. rags.

Atlas Waste Mfg. Co., Veendam, Rotterdam, 29 bls. rags.

D. M. Hicks, Veendam, Rotterdam, 49 bls. rags.

S. Birkenstein Sons., Veendam, Rotterdam, 235 bls. bagging.

Chase National Bank, Alberta, Trieste, 94 bls. rags.

Mechanics & Metals National Bank, Alberta, Leghorn, 414 bls. rags.

Mechanics & Metals National Bank, Alberta, Leghorn, 84 bls. bagging.

L. H. Abenheimer, Iscarco, Genoa, 200 bls. jute card waste.

Royal Manufacturing Co., Isarco, Genoa, 128 bls. cotton waste.

Brown Bros. & Co., Isarco, Genoa, 199 bls. rags.

A. W. Fenton, Inc., Isarco, Leghorn, 346 bls. rags.

Anglo South American Trust Co., Isarco, Leghorn, 78 bls. rags.

National City Bank, Isarco, Leghorn, 79 bls. rags.

National City Bank, Isarco, Naples, 30 bls. rags.

Anglo South American Trust Co., Kofuku Maru, Genoa, 158 bls. rags.

Brown Bros. & Co., Tuscania, Glasgow, 40 bls. bagging.

Anglo South American Trust Co., Tuscania, Glasgow, 133 bls, paperstock.

A. W. Fenton, Inc., Ala, Rotterdam, 80 bls. rags.

E. J. Keller Co., Inc., Ala, Rotterdam, 307 bls. rags.

G. M. Graves Co., Ala, Rotterdam, 26 bls. rags.

R. Wolf, Ala, Rotterdam, 80 bls. rags.

G. W. Millar & Co., Inc., Ala, Rotterdam, 628 bls. bagging.

A. W. Fenton, Inc., Waukegan, Havre, 51 bls. rags.

Sherwin Sheppard Co., Waukegan, Havre, 67 bls. rags.

F. Garvan, Inc., Waukegan, Havre, 352 bls. Buckrams.

R. Bishop Mfg. Co., Waukegan, Dunkirk, 100 bls. rags.

Chemical National Bank, Pres. Harding, Bremen, 243 bls. bagging.

Chemical National Bank, Pres. Harding, Bremen, 30 bls. Fustians.

Anglo South American Trust Co., Pres. Harding, Bremen 38 bls. rags.

National City Bank, Pres. Harding, Bremen, 172 bls. new clippings.

L. H. Abienheimer, Mount Clay, Hamburg, 104 bls. rags.

A. W. Fenton, Inc., Mount Clay, Hamburg, 128 bls. rags.

W. Schall & Co., Mount Clay, Hamburg, 77 bls. new rags.

Anglo South American Trust Co., Mount Clay, Hamburg, 63 bls. jute waste.

J. B. Moors & Co., Villania, London, 216 bls. rag.

National City Bank, Villania, London, 58 bls. paper stock.

Equitable Trust Co., Villania, London, 34 bls. waste paper.

OLD ROPE

Brown Bros. & Co., Veendam, Rotterdam, 68 pgs.

Ellermans' Wilson Line, Galileo, Hull, 34 coi's.
Ellermans' Wilson Line, Galileo, Hull, 48 bls.

WOOD PULP

M. Gottesman & Co., Inc., Veendam, Rotterdam, 600 bls. wood pulp.

Castle & Overton, Inc., Columbus, Bremen, 700 bls. wood pulp.

M. Gottesman & Co., Inc., West Gotoneska, Sundsvall, 1875 bls. woodpulp.

Johanson, Wales & Sparre, Inc., West Gotoneska, Hernosand, 1950 bls. sulphite pulp.

Brown Bros., & Co., West Gotoneska, Norrsundet, 500 bls. sulphate pulp.

(Continued on page 68)

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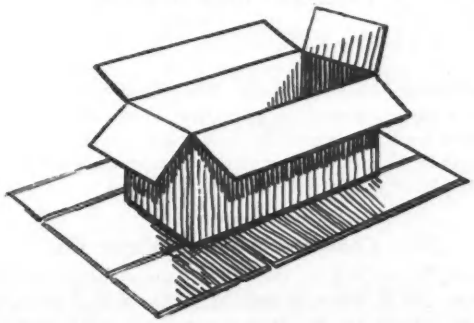

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Imports of Paper and Paper Stock

(Continued from page 66)

Pagel Horton & Co., Inc., West Grotoneska, Husum, 3600 bls. sulphate pulp, 600 tons.

Pagel Horton & Co., Inc., West Grotoneska, Husum, 600 bls. sulphite pulp, 100 tons.

Bulkley Dunton & Co., Alberta, Trieste, 250 bls. woodpulp.

International Accep. Bank, Ala, Rotterdam, 710 bls. woodpulp, 153 tons.

PHILADELPHIA IMPORTS

WEEK ENDING OCTOBER 31, 1925

F. Weber & Co., Isarco, Genoa, 5 cs. paper.

Neidich Process Co., Gustavsholm, Helsingfors, 51 cs. tissue paper.

Paper House of Penna., Gustavsholm, Kotka, 336 cs. printing paper.

Paper House of Penna., Gustavsholm, Kotka, 164 rolls news print.

Lagerloef Trading Co., Gustavsholm, Kotka, 100 bls. wood pulp boards.

Lagerloef Trading Co., Gustavsholm, Kotka, 269 rolls wood pulp boards.

Mechanics & Metals National Bank, Gustavsholm, Helsingfors, 197 bls. rags.

Equitable Trust Co., Isarco, Leghorn, 261 bls. rags.

Union National Bank, Isarco, Leghorn, 78 bls. rags.

International Accep. Bank, Isarco, Leghorn, 141 bls. rags.

National City Bank, Isarco, Leghorn, 72 bls. rags.

Union National Bank, Isarco, Genoa, 409 coils old rope.

Johanson, Wales & Sparre, Inc., West Gotoneska, Frano, 3480 bls. sulphate pulp, 580 tons.

Johanson, Wales & Sparre, Inc., West Grotoneska, Kramfors, 1200 bls., sulphite pulp 200 tons.

Brown Bros. & Co., West Grotoneska, Norsundet, 625 bls. sulphate pulp, 125 tons.

Pagel Horton & Co., Inc., West Grotoneska, Husum, 3600 bls. sulphate pulp, 600 tons.

PORTLAND, ME. IMPORTS

WEEK ENDING OCTOBER 31, 1925

M. Gottesman Co., Inc., West Grotoneska, Sundsvall, 1000 bls. sulphite pulp, 200 tons.

Brown Bros. & Co., West Grotoneska, Norsundet, 625 bls. sulphite pulp, 125 tons.

BOSTON IMPORTS

WEEK ENDING OCTOBER 31, 1925

Johanson, Wales & Sparre, Inc., Inc., Korsholm, Sundsvall, 2220 bls. sulphite pulp.

Whalen Pulp and Paper Mills Sold

VANCOUVER, B. C., October 30, 1925.—Robert Bone, manager of the Montreal Trust Company, today purchased for $4,000,000 the assets of the bankrupt Whalen Pulp and Paper Mills, Ltd., which were offered at public auction by court order. There were no other bidders.

A. L. Clark Goes to Arizona

[FROM OUR REGULAR CORRESPONDENT]

KALAMAZOO, Mich., November 2, 1925.—A. L. Clark, secretary-treasurer of the Standard Paper Company, accompanied by Mrs. Clark, left Tuesday for Phoenix, Arizona, where he will spend the winter. Mr. Clark is the victim of a serious bronchial trouble. He spent the winter of 1924-5 in Arizona and was benefitted by the sojourn.

St. Regis to Start Erecting Mill

MONTREAL, Que., November 2, 1925.—After purchasing $85,000 worth of land from farmers in the parish of Cap Rouge, Que., a short distance from the Dominion Experimental Farms, the St. Regis Paper company has decided to start the erection of its pulp and paper mills at that point early in May, 1926. Timber will be obtained from the large limits of the company on the north shore along the lower St. Lawrence, and also from the Abitibi district.

Beveridge Paper Co. Mails Box Board Samples

The Beveridge Paper Company of Indianapolis, is now mailing to the trade a complete sample set of its stock line of white and colored patent coated box board. Samples of this line are put up in a very attractive envelope made from one of the colors in their box board line. Accompanying the samples is a small calendar for the month of November, printed on a new pumpkin colored antique finish stock, which the mill has just originated.

Buy Contoocook Valley Paper Co.

BOSTON, Mass., Nov. 3, 1925.—The Monadnock Paper Mills of Bennington, N. H. with sales office at 201 Devonshire street, Boston, Mass. have purchased the Mills of the Contoocook Valley Paper company at West Henniker, N. H. and will operate them under the present name.

The executive office will be at Bennington, N. H. The sales office will be at 201 Devonshire street, Boston, Mass. under the management of George C. Andrew.

Connecticut Valley Cost Men to Meet

A meeting of the Connecticut Valley Division of the Cost Association of the Paper Industry, will be held at the Nonotuck Hotel, Holyoke, Mass., at 6:30 p. m., on Thursday evening, November 12.

The speaker of the evning will be Charles W. Gould, Jr., cost accountant at the L. L. Brown Paper Company, Adams, Mass.; subject, "Short Cuts in Cost Accounting Practice and Closing of the General Books."

Dinner will be served first and the address will follow.

Mr. Gould has had a number of years' experience in Paper Cost Accounting, and his address undoubtedly will prove to be very interesting to those present. Both non-member as well as member mills of the Cost Association are invited to send representatives to these meetings, the only cost being the price of the dinner.

This is the first meeting of the 1925-1926 season of the Connecticut Valley Division, and it is expected that there will be a large attendance, so reservations should be made as early as possible.

New Line of Jenkins Valves

A line of Medium Pressure Bronze Globe and Angle Valves for 225 pounds working steam pressure is announced by Jenkins Bros. They have been designed to fulfill a need for a valve with renewable disc feature which will satisfactorily meet higher pressures than recommended for standard pattern valves. An important feature of these valves is the bonnet and union, made in one piece to screw on to the outside of the body threads. This construction gives added strength to the body end, the bonnet hexagons being made especially large, allow easy removal of the bonnet without distortion.

Of special interest is the "half joint" formed when the bonnet and body are screwed together. This is a new feature, designed by Jenkins Bros., which makes a very strong, though easily removable joint.

The valves are regularly fitted with the Jenkins Special No. 800 composition disc for high pressure work. A composition disc for a high presure valve will appeal to those who recognize the superiority of such disc over a metal-to-metal seat. No regrinding is necessary to insure a tight valve. The spindle is made of manganese bronze, with large, powerful threads which are all in contact when the valve is closed. The stuffing box is deep, with plenty of asbestos packing which is compressed by means of a bronze follower. A ventilated hand wheel of malleable iron is used.

The valves are furnished, Globe and Angle with screwed or flanged ends, in sizes of ¼ in. to 3 in.

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Cylinder Wires All Sizes

The Lindsay Wire Weaving Co.

Collinwood Sta. CLEVELAND, OHIO

New York Market Review

Office of the PAPER TRADE JOURNAL,
Wednesday, November 4, 1925.

With the holiday season not far off, a heavy demand for all grades of paper is being encountered by the manufacturers, for future business as well as for immediate shipment. In the face of this demand from all sources prices are being maintained, and manufacturers are preparing for record transactions before the end of the holiday season.

The demand for box board, as evidenced in the volume of orders and spot business, is very encouraging, it is said. Manufacturers of fine and coarse papers are meeting similar demands.

Mechanical Pulp

The demand for spot supplied in the ground wood market is particularly strong this week, it is reported. A good volume of contract business is being done. Mechanical pulp continues to flow out to the consumer, the market inclining more toward a rise and the stocks diminishing.

Chemical Pulp

The chemical pulp market continues strong this week. Kraft pulp is scarce. Information from Sweden indicates that of this nation's total output of sulphite, 60 per cent has been sold for the coming year. About 80 per cent. Kraft pulp manufactured there for 1926 has also been sold. Higher prices are anticipated for the remaining unsold portions.

Old Rope and Bagging

All grades of bagging continue firm in the market with indications of prices going higher. There is a demand for this material from all quarters while the offerings are scarce. A good demand for old rope is being experienced, especially for domestic grades, it is reported.

Rags

The demand for better grades of old rags shows a slight weakening, while the market in general remains about the same. Roofing stocks are practically unchanged.

Waste Paper

The better grades of waste paper are holding firm in the market. The low grades are evidencing a slight easing off. The mechanical and chemical pulp markets continue to reflect the improved conditions of the waste paper trade. Prices in general are being well maintained.

Twine

The approach of the holiday season with its attendant activity in shopping, has had a marked influence on the market for twine, which continues to be strong. Dealers are confident that business will continue at its present volume for some little time after the first of the year.

Bids and Awards For Government Paper

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., November 4, 1925. — The Government Printing Office has received bids for 13,275 pounds White Rope Drum Head Paper, 26 x 42, 177 lbs. as follows: Reese & Reese at 19.85 cents per pound; R. P. Andrews Paper Company, 19.7 cents; Old Dominion Paper Company, 14.74 cents; American Writing Paper Company, 19.84 cents; Virginia Paper Company, Inc., 19.9 cents; R. A. Cauthorne Paper Company, 19.74; and Carter, Rice & Co., 21 cents.

Bids were also received for 1,000 Crane's Watermarked Kid Finish White Envelopes, 8¼ x 7, as follows: R. P. Andrews Paper Company, $12.50 per thousand; Eaton, Crane & Pike Company, $43.62; and Charles W. Beers & Co., $30.00.

The following bids also were received for 25,000 Rope Manila Envelopes, 9 x 12; U. S. Envelope Company $11.90 per thousand; and R. P. Andrews Paper Company, $10.50 per thousand.

The Government Printing Office will receive bids on November 6 for 40,000 pounds Plain Chip, Straw or News Board; size 25 x 40 inches; thickness .018 inch (approximately 120 pounds).

The Government Printing Office has received the following bids for 1,160 pounds of 24 x 32, red press board; Old Dominion Paper Company at 17.9 cents per pound; Carter, Rice & Co., 14.76; Mathers Lamm Paper Company, 15.25; Barton Duer and Cupp Paper Company, 15; and Doebler & Mudge, 20.69.

The Government Printing Office will receive bids on November 6 for 36,500 pounds, 19,900 sheets, of various size best quality binders board.

The Baxter Paper Company has been awarded the contract for furnishing the Government Printing Office with 10,000 pounds (200 reams) of 25 x 38—50, machine finish salmon book paper at 7.23 cents per pound, bids for which were received on October 19.

The International Paper Company will furnish 40,000 pounds (1400 reams) of 21½ x 32½ ground wood mimeograph paper at 4.75 cents per pound, and the Holyoke Card and Paper Company will furnish 25 reams of 22 x 28 white railroad board at $36.25. Bids for these items were received on October 16.

Pacific Paper Products Co. To Expand

TACOMA, Wash., October 31, 1925.—Infusion of new capital into the Pacific Paper Products Company of Tacoma, to enable the infant industry, now equipped to manufacture all forms of printed and unprinted wax paper, to seek aggressively for the big business in waxed papers awaiting it along the Pacific coast, was announced last week by A. J. Martin, past manager of the company.

Leo G. Richter, conducting a wholesale electrical supply business with headquarters in Seattle and branches all along the Pacific coast, has purchased a controlling interest in the Tacoma factory, it is announced. He will assume the active management of the plant at once.

The Pacific Paper Products Company occupies a large building ideally situated for its purposes, between two terminal tracks on the tideflats, south of the east approach of the 11th street bridge. It has an installation of $100,000 of the finest wax paper machinery, including printing presses to print bread wrappers and like products. The waxing machine is one invented by Mr. Martin, with a capacity three times that of other machines installed in most of the factories of the country.

The plant has been operated for some months largely in the making of lunch rolls and papers used in the fruit industry. The printing presses are comparatively recent and now that operating capital is available the company will seek actively for the huge bread wrapper business, it is announced.

GOOD RAGS
FOR PAPER MILLS

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Bertha Coal

From Our Own Mines in

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BERTHA-CONSUMERS COMPANY

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Daily Capacity of 600 Air-Dry Tons

The extent
of our production of
High Grade
BLEACHED
Sulphite Fibre

insures uniform quality, prompt
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Mills at Berlin, New Hampshire

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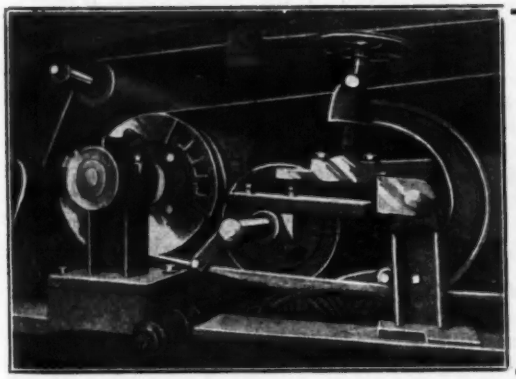

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If you are having trouble with Railroading, Cockling, Crushing, Etc., the installation of one of our Vacuum Rolls will certainly help you.

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FARNHAM MANUFACTURING CO.

36-40 INDIANA ST. BUFFALO, N. Y.

Miscellaneous Markets

Office of THE PAPER TRADE JOURNAL,
Wednesday, November 4, 1925.

With spot business for materials in good demand, the general trend of the chemical market continues vigorous and constant last week, contract sales being strong, and leading manufacturers well filled up with orders that will keep them busy until the end of the year. Practically no changes were reported in the market prices of the various materials.

BLANC FIXE.—Though inquiries about contract shipments are continuing to pour in, the blanc fixe market continues normal, a quiet tone prevailing in the demand for spot business. Quotations range from $60 to $70 a ton for the pulp, and from $75 to $90 for the powder

BLEACHING POWDER.—With the demand for bleaching powder still active and with the producing costs still high, the increase in prices applying to spot sales and contract deliveries is still prevalent. These prices are quoted at from $2.00 to $2.40 per 100 pounds, in large drums, at works.

CAUSTIC SODA.—The same steady tone of the caustic soda market continues. Renewals of contract business, which gauged by withdrawals continues to be large are reported at all sources. Accumulations are still low. The prevailing quotations range from $3.10 to $3.15 per 100 pounds, at works.

CASEIN.—The casein market continues on its steady course with a moderate amount of business being done. The general quotation ranges from 13 to 14 cents a pound for domestic and 13.50 to 14.75 cents per pound for foreign.

CHINA CLAY.—The steady good demand for china clay has shown no changes. Shipments are coming forward in usual monthly quantities, it is reported; prices on imported grades running from $14.50 a ton to $22.50. Domestic grades average between $12 and $15 a ton.

CHLORINE.—An improving demand for chlorine brought added shipments of this material to the market last week, and dealers, it is reported, are placing orders in large numbers for 1926 at 4 cents a pound in tanks or multi-unit cars at works. Chlorine is quoted at 4½ cents a pound on spot orders.

ROSIN.—Fluctuation in the price of rosin has been brought on by an abnormal demand abroad and a short crop in America, offers being light on all grades. Paper makers grades are quoted at $15.60 to $15.80 in barrels of 280 pounds.

SALT CAKE. — The market for salt cake is reported to be a little firmer this week, the prices having advanced in most instances to from $17 to $20 a ton, in bulk, at works. More shipments and spot business are anticipated for the future.

SODA ASH.—A large demand for soda ash has continued to stimulate production, an increasing quantity of this material being demanded on shipment contracts. Prices are reported to be from 1.38 to 1.63 cents a pound, in bulk, at works.

STARCH.—The concessions the refiners made to customers in the starch market because of certain changes in the price of grain, still continue, the rate for special paper starch being quoted at $3.32 per 100 pounds, in bags, and $3.39 in barrels.

SULPHATE OF ALUMINA. — The increase of shipments of sulphate of alumina continues with no abatement in the big demand of the paper industry for this material. The price remains at from $1.40 to $1.50 per 100 pounds for commercial grades. The iron free is quoted at from $2.00 to $2.35.

SULPHUR.—The sulphur market remains constant, the steady active lines of shipment and spot business continuing as of the week before. The price is still quoted at from $19 to $20 a ton, in bulk, ship side, and from $15 to $16 a ton, at mine.

TALC.—The market for talc is very fair, according to reports. The demand continues to be good. Prices quoted remain the same—$17 to $18 a ton according to grade.

GETS LARGE TIMBER LIMITS

(*Continued from page 28*)

Pere Boiler Company plant in about 30 days, according to an announcement by Morris Miller.

Paper will be manufactured from pulp made by a process of reclamation from waste paper in the De Pere Pulp and Paper Company's mill, a former flour mill plant. This plant also is operated by practically the same organization.

Fatal Accident at Interlake Mill

Two employees of the Interlake Pulp and Paper Mill of the Consolidated Water Power and Paper Company, Appleton, were killed, and a third man escaped injury when a huge crane used for unloading pulpwood tipped off the railroad track into the mill tailrace the afternoon of October 24.

The dead are Henry Knaack and Peter J. Ambrosius. The former was imprisoned under the wreckage, and workmen tried for hours to extricate him, but without results. A railroad wrecker sent here from Green Bay was unable to raise the crane. Knaack was severely burned as his body was pressed against the hot boiler, and he died two hours after the crash. Ambrosius who also was caught underneath, was able to crawl out, but his burns were so severe that he died the next morning. Workmen were of the opinion that the crane operators were attempting to put on too big a load which they were taking from the pulpwood piles to dump into the tailrace. It appeared that Knaack and Ambrosius were lacking in experience as crane operators.

Little Rapids Paper Co. Gets New Power

The Little Rapids Paper Company on the Fox River near De Pere this week began receiving power from the Wisconsin Public Service Corporation. In the past this company has been served with the water power developed on the Fox River, but the uncertainty of this source of power at this point caused them to hook up with the utility company. The mill recently secured a contract from Sears, Roebuck & Co., Chicago, for supplying quantities of pulp, and the power from the W.P.S. will be used to operate wood grinders. The contract calls for the use of a minimum of 600 horsepower and operation all days except Sundays.

Insurance on Life of O. Bache-Wiig

The fourth largest life insurance payment in the United States for the year 1924 was paid upon the death of the late O. Bache-Wiig, Mosinee, Wis., paper manufacturer, according to a list just published in the issue of the Insurance Press. A total of $726,000 was paid upon the death of Mr. Bache-Wiig largely to paper companies with which he was identified. The largest insurance claim in the country was that upon the death of Henry M. Byllesby, head of the Byllesby Interests, of which the Wisconsin Public Service Corporation at Green Bay is a subsidiary. The insurance paid to his beneficiaries amounted to $1,442,732.

General Trade News

Morrow Herner, manager of the John Strange Pail Company, allied with the John Strange Paper Company, Menasha, and Miss Blanche Cotton, of Des Moines, Iowa, were married at the bride's home on Oct. 28.

W. J. Peacock of the Northern Paper Mills, Green Bay, was the speaker at the meeting of the Lions Club of that city last week. He was one of the Green Bay paper mill men who attended the National Safety Congress in Cleveland recently.

The Bergstrom Paper Company of Neenah has dismantled the old Winnebago mill of that city which will be replaced with a warehouse. The Winnebago mill was one of the oldest paper mills in the Fox River Valley. It was formerly owned by Davis Brothers.

CROWN FILLER

The uniformity of the product, the entire freedom from grit, dirt and other impurities make Crown Filler the highest grade of filler available to the paper manufacturer.

Crown Filler is naturally a pure, bright white—**absolutely pure!**

Sold direct from manufacturer to consumer. Address all inquiries to

The Solvay Process Co.

Detroit, Mich.; SYRACUSE, N. Y.; Hutchinson, Kas.

Sales Department:
WING & EVANS, INC.
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Boston Cincinnati Cleveland Detroit Pittsburgh
Chicago Syracuse Indianapolis Philadelphia
Kansas City St. Louis

Clay

300 tons daily

AMERICAN MADE FOR AMERICAN TRADE

Some portion of our clay production is *pulverized.* That part of it which is *pulverized* is, as far as we know, the only *pulverized clay* which is washed and refined before being pulverized. This insures greater freedom from impurities and an exceedingly uniform product.

Prices on M-E pulverized clay may surprise you even considering this additional treatment.

Let us submit samples and quote you

THE
MINER-EDGAR CO.
110 William St.,
NEW YORK

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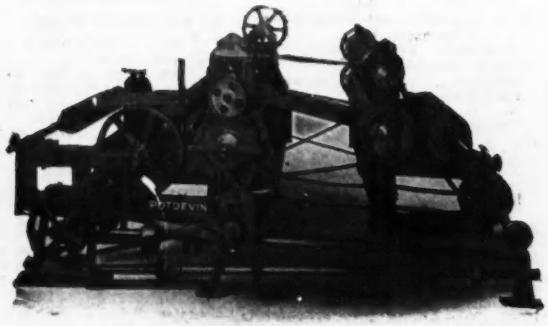
PAPER WAXING



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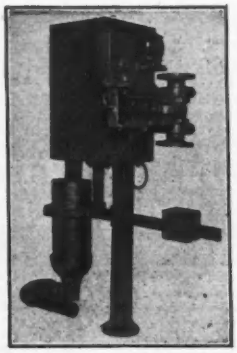
CERTAINLY!



Do you have them?
SOMETIMES!

Why not use the
"TRIMBEY"
Regulator and have them—
ALL THE TIME!

More than 400 in use in the paper and pulp mills of North America and Europe.

Full information on request.

TRIMBEY MACHINE WORKS
Glens Falls, N. Y.

"Made in Canada"? Yes.

Market Quotations

Quoted by Hepburn & Co., No. 74 Broadway, N. Y. City, to whom all inquiry for quotations on these or any other Securities is referred.

BONDS	BID	OFFERED
Abitibi Power and Paper, Gen. 6s 1940	101	103*
Advance Bag and Paper, 7s 1943	98	100*
Bastrop Pulp and Paper, 7½s 1932	104	108*
Brompton Pulp and Paper, 6s 1927	94	96
Beaver Board, 8s 1933	92	94
Bedford Pulp and Paper, 6½s 1942	98	...
Berkshire Hills Paper Co., 8s 1941	...	80
Beaver Products Corp., 7½s 1942	104	106
Belgo Canadian Paper, 6s 1943	101	103
Brown Paper Co., 8s 1931	102	...
Berlin Mills, 5s 1931	98	...
Bryant Paper Co., 6s 1942	99	102*
Brown Compan.y Serial, 6s 1925-43	97	100
Central Paper 6½s 1925-42	91	94
Cape Breton Pulp and Paper, 6s 1932	100	...
Carthage Sulphite Pulp and Paper, 8s 1941	40	50
Champion Coated Paper Co., 6s 1924-34	...	102
Champion Fibre Co. Notes, 8s 1930	101	...
Cherry River Paper, 5s 1929	98	100*
Donnaconna Paper Co., Ltd., 6s 1940	99	101
Eddy Paper, 7½s 1931	100	...
Eagle Paper, 6½s 1932	96	100
Escanaba Paper, 6s 1933	87	95*
Fox River Paper, 7s 1931	100	...
Fort Orange Paper Co., 7s 1942	95	99
Gilbert Paper Co., 7s 1927	96	...
Gilbert Paper Co., 6½s 1923-29	101	102*
Hammermill Paper Co., 6s 1930-39	99	...
Hercules Corp'n, 8s 1936	100	...
Hummell, Ross Fibre Corp., 7s 1925	90	...
Jessup & Moore Paper Co., 6s 1939	97	...
Kenmore Pulp and Paper Co., 6s 1937	90	...
Lake Superior Pulp and Paper, 6s 1941	105	...
Mattagami Pulp and Paper, 6s 1937	90	...
Marinette & Menominee, 7½s 1936	104	...
National Paper and Type, 6s 1947	96	99*
Oswego Falls Corp., 8s 1942	102	105
Orono Pulp and Paper, 5s 1941	93	96*
Orono Pulp and Paper, 6s 1943	97	100*
Oxford Paper Co., 6s 1947	101	...
Paterson Parchment Paper, 5½s 1927-28	98	100
Paterson Parchment, 6s 1938	98	100*
Parker Young Co., 6½s 1944	92	96
Price Bros. & Co., Ltd., 6s 1943	99	101
Provincial Paper Mills, Ltd., 6s 1940	97	...
Riordon Co., Series A, 8s 1940	115	118
Riordan Paper, 6s 1924	99	101
Riordan Pulp and Paper, Ltd., 6s, 1929	33	35
River Raisin Paper, 8s 1936	104	106
St. Maurice Paper Co., Ltd., 5½s, 1929	98½	99½
St. Regis Paper, 6½s, 1929-35	97	102
Smith (Howard) Paper Mills, 7s 1941	96	99
Smith (Howard) Paper Mills, 6s 1934	98	...
St. Croix Paper, 5s 1923-37	95	...
Stevens & Thomson Paper, 6s 1942	86	90
Spanish River Pulp and Paper, 6s 1931	105	108
Spanish River Pulp and Paper, Gen 8s 1941	106	109
Ticonderoga Pulp and Paper Co., 6s, 1940	91	95
Ticonderoga Pulp & Paper 1-5, 1930	88	93
S. D. Warren Company, 6s, 1945	97	100
Whittaker Paper, 1st 7s 1942	98	...
Watab Paper Co., 6½s 1942	100	104
Waterway Paper Products, 7s 1924-27	95	100
Wayagamack Pulp and Paper, Ltd., 6s 1951	88	90

STOCKS	BID	ASKED
Abitibi Power and Paper, Com	67	70
Abitibi Power and Paper, Pfd	103	...
Advance Bag and Paper, Com	8	12*
Advance Bag and Paper, Pfd	77	...
Beaver Board, Com	4	6
Beaver Board, Pfd	32	35
Bryant Paper, Cap	12	...
Bryant Paper, Pfd	9	...
Chicago Mill & Lumber Co., Com	63	...
Chicago Mill & Lumber Co., Pfd	98	104
Crown Williamette, Com	93	98*
Crown Williamette, 7% A, Pfd	98	SW
Donnaconna Paper, Com	49	54
Donnaconna Paper, Pfd	95	100
Great Northern Paper, Cap	260	270
Jessup & Moore Paper, Pfd	80	...
International Paper Co., Com	59	61
International Paper Co., Pfd. 6%	75	80
Mengel Company, Com	60	65
Mengel Company, Pfd	83	93
Oxford Papers, Com	102	...
Oxford Paper Co., Pfd	100	...
Provincial Paper Co., Com	94	98
Provincial Paper Co., Pfd	99	...
Price Brothers, Cap	47	50
St. Croix Paper	185	215
St. Maurice Paper Co., Cap	83	85
St. Regis Paper Co., Cap	54	56
Spanish River Pulp and Paper, Com	97	101
Spanish River Pulp and Paper, Pfd	109	...
Ticonderoga Pulp and Paper, Cap	145	...
West Virginia Pulp and Paper, Cap	...	47
West Virginia Pulp and Paper, Pfd	95	105
Whittaker Paper, Com	50	...
Whittaker Paper, Pfd	60	70

* Nominal.

Paper

(F. o. b. Mill)

Ledgers	11.00	@38.00
Bonds	9.00	@45.00
Writings—		
Extra Superfine	14.00	@32.00
Superfine	14.00	@32.00
Tub Sized	10.00	@15.00
Engine Sized	8.00	@11.00
News—		
Rolls, contract	3.50	@ 3.90
Rolls, contract, '26	3.25	@ 3.65
Rolls, transit	3.75	@ 4.25
Sheets	4.00	@ 4.25
Side Runs	3.25	@ 4.00
Book, Cased—		
S. & S. C.	7.00	@ 9.75
M. F.	6.25	@ 8.75
Coated and Enamel	8.00	@15.00
Lithograph	8.00	@15.00
Tissues—Per Ream		
White No. 1	.70	@ .90
Anti-Tarnish	1.10	@ 1.90
Colored	1.00	@ 2.00
White No. 2	.65	@ .75
Kraft	.85	@ .95
Manila	.70	@ .80
Kraft—		
No. 1 Domestic	5.75	@ 6.25
No. 2 Domestic	5.10	@ 5.50
Southern	4.75	@ 5.00
Imported	5.50	@ 5.75
Manila—		
No. 1 Jute	9.00	@ 9.25
No. 2 Jute	7.75	@ 8.50
No. 1 Wood	4.75	@ 5.25
No. 2 Wood	4.00	@ 4.50
Butchers	3.75	@ 4.25
Fibre Papers—		
No. 1 Fibre	4.50	@ 5.00
No. 2 Fibre	4.25	@ 4.75
Common Bogus	2.50	@ 2.75
S. Screening	3.00	@ 3.50
Card Middles	4.00	@ 5.00
Boards—per ton—		
News	45.00	@47.50
Straw	57.00	@60.00
Chip	42.00	@45.00
Binders' Boards	72.50	@77.50
Sgl. Mla. Ll. Chip	58.00	@60.00
Wood Pulp	70.00	@75.00
Container	62.50	@67.50
Sulphate Screenings—		
Coarse	.75	@ .85
Refined	1.75	@ 2.00
Ground Wood—		
Screenings	20.00	@25.00
Glassine—		
Bleached, basis 25 lbs.	13.00	@16.00
Bleached, basis 20 lbs.	15.00	@16.00

Mechanical Pulp

(Ex-Dock)

No. 1 Imported—		
Moist	35.00	@40.00
Dry	38.00	@42.00
(F. o. b. Mill)		
No. 1 Domestic	28.00	@32.00

Chemical Pulp

(Ex-Dock, Atlantic Ports)

Sulphite (Imported)—		
Bleached	4.00	@ 4.50
Easy Bleaching	3.25	@ 3.60
No. 1 strong unbleached	2.95	@ 3.25
No. 2 strong unbleached	2.80	@ 2.95
No. 1 Kraft	3.00	@ 3.25
Sulphate—		
Bleached	3.75	@ 4.00
(F. o. b. Pulp Mill)		
Sulphite (Domestic)—		
Bleached	4.00	@ 4.75
Easy Bleaching Sulphite	3.00	@ 3.25
News Sulphite	2.65	@ 2.80
Mitscherlich	3.25	@ 3.75
Kraft (Domestic)	3.00	@ 3.50
Soda Bleached	4.00	@ 4.25

Domestic Rags

New Rags

Prices to Mill f. o. b. N. Y.

Shirt Cuttings—		
New White, No. 1	14.25	@15.00
New White, No. 2	8.00	@10.00
Silesias No. 1	10.00	@11.00
New Unbleached	14.00	@15.00
Washables	8.25	@ 9.00
Fancy	9.50	@10.00
Blue Overall	11.50	@11.75
New Blue Prints	7.25	@ 7.75
New Soft Blacks	5.75	@ 6.20
Mixed Khaki Cuttings	7.00	@ 7.50
Pink Corset Cuttings	10.25	@10.75
Pink Muslin	10.00	@10.50
New Light Seconds	3.25	@ 3.50
O. D. Khaki Cuttings	7.25	@ 7.75
Men's Corduroy	5.75	@ 6.25
New Mixed Blacks	4.00	@ 4.50

Old Rags

White, No. 1—		
Repacked	6.75	@ 7.25
Miscellaneous	6.25	@ 6.75
White, No. 2—		
Repacked	4.00	@ 4.25
Miscellaneous	3.50	@ 3.75
St. Soiled, White	2.90	@ 3.00
Thirds and Blues—		
Repacked	3.75	@ 4.00
Miscellaneous	3.00	@ 3.25
Black Stockings	3.75	@ 4.25
Roofing Rags—		
Cloth Strippings	2.35	@ 2.45
No. 1	2.35	@ 2.45
No. 2	1.90	@ 2.00
No. 3	1.60	@ 1.70
No. 4	1.60	@ 1.70
No. 5A	1.25	@ 1.50

Foreign Rags

New Light Silesias	10.00	@10.50
Light Flannelettes	10.50	@11.50
Unbleached Cottons	13.50	@15.00
New White Cuttings	13.50	@15.00
New Light Oxfords	10.50	@11.50
New Light Prints	9.00	@10.00
New Mixed Cuttings	4.25	@ 4.50
New Dark Cuttings	4.00	@ 4.50
No. 1 White Linens	10.00	@11.00
No. 2 White Linens	7.25	@ 8.25
No. 3 White Linens	6.25	@ 6.75
No. 4 White Linens	4.50	@ 5.50
Old Extra Light Prints	4.25	@ 4.50
Ord. Light Prints	3.25	@ 3.75
Med. Light Prints	2.50	@ 3.00
Dutch Blue Cottons	3.50	@ 4.00
Ger. Blue Cottons	3.00	@ 3.25
Ger. Blue Linens	4.00	@ 4.50
Checks and Blues	3.25	@ 3.50
Linsay Garments	2.15	@ 2.45
Dark Cottons	2.10	@ 2.20
Shoppery	2.20	@ 2.50
French Blues	3.75	@ 4.25

Bagging

Prices to Mill F. o. b. N. Y.

Gunny No. 1—		
Foreign	3.60	@ 4.00
Domestic	3.75	@ 4.00
Wool Tares, light	2.85	@ 3.00
Wool. Tares, heavy	2.90	@ 3.10
Bright, Bagging	2.75	@ 2.90
Mixed Bagging	2.30	@ 2.50
Sound Bagging	2.10	@ 2.20
Roofing Bagging	1.75	@ 1.80
Small Mixed Rope	2.15	@ 2.35
Manila Rope—		
Foreign	5.50	@ 5.75
Domestic	6.50	@ 7.00
New Bu. Cut	4.00	@ 4.25
Hessian Jute Threads—		
Foreign	4.50	@ 5.00
Domestic	4.25	@ 4.75

Old Waste Papers

(F. o. b. New York)

Shavings—		
Hard, White, No. 1	3.60	@ 3.80
Hard, White, No. 2	3.20	@ 3.40
Soft, White, No. 1	3.00	@ 3.25
Flat Stock—		
Stitchless	1.30	@ 1.40
Overissue Mag	1.30	@ 1.40
Solid Flat Book	1.20	@ 1.30
Crumpled No. 1	.85	@ .95
Solid Book Ledger	1.90	@ 2.00
Ledger Stock	1.50	@ 1.60
New B. B. Chips	.65	@ .75
Manilas—		
New Env. Cut	2.25	@ 2.40
New Cut No. 1	1.65	@ 2.00
Extra No. 1 old	1.20	@ 1.90
Print	.75	@ .85
Container Board	.65	@ .75
Bogus Wrapper	.75	@ .85
Old Krafts Machine compressed bales	2.35	@ 2.50
News—		
No. 1 White News	1.95	@ 2.05
Strictly Overissue	.75	@ .85
Strictly Folded	.67½	@ .85
No. 1 Mixed Paper	.50	@ .55
Common Paper	.50	@ .75

Twines

Cotton—(F. o. b. Mill)—		
No. 1	.42	@ .45
No. 2	.41	@ .43
No. 3	.40	@ .42
India, No. 6 basis—		
Light	.19	@ .20
Dark	.17	@ .19
B. C., 18 basis	.39	@ .41
A. B. Italian, 18 Basis	.36	@ .40

HIGH GRADE COATING AND FILLER CLAYS

REPRESENTING
ENGLISH CHINA CLAYS, LTD.
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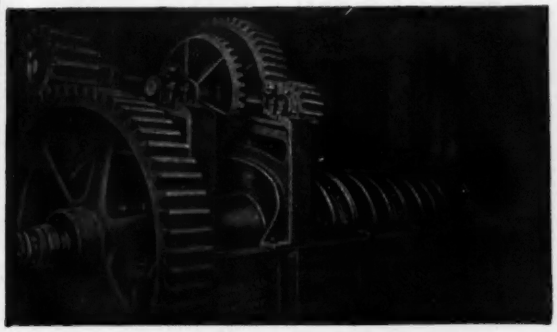
TRADE MARK

LARGEST
CHINA CLAY PRODUCERS
IN THE WORLD.

ENGLISH CHINA CLAYS SALES CORPORATION
33 WEST 42nd ST. NEW YORK CITY



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FOR DEWATERING PULP

ADVANTAGES

1. AUTOMATIC—requiring a minimum of labor to operate.
2. CONTINUOUS IN ACTION—hence large saving in power and increase in capacity.
3. ECONOMICAL IN POWER—small power required to operate.
4. HEAVY CONSTRUCTION—hence requiring a minimum of repairs.

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68 William Street New York

DRYER FELTS

STANDARD and MULTIPLE PLY

ENGLISH WEAVE

In Two, Three, Four, Five and Six Ply, 60 inches to 176 inches in width.

BY ACTUAL TEST this felt will dry 33 per cent more paper, with ABSOLUTELY NO FELT MARKS IN THE PAPER.

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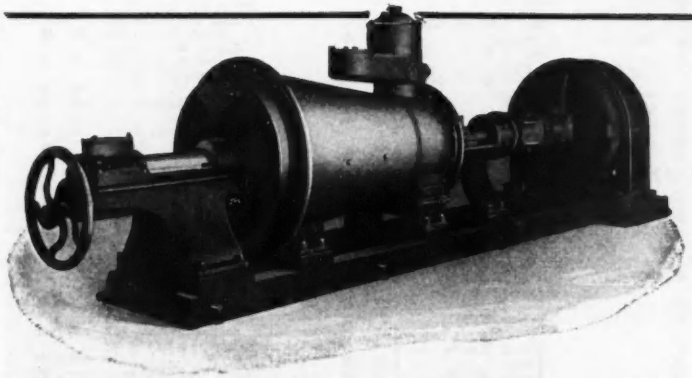
THREE PLY FELT for other paper

FITCHBURG DUCK MILLS
FITCHBURG - MASSACHUSETTS



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DILLON JORDAN

Our latest Improved Machine, three sizes; belt or direct connected motor driven. All Bearings self-oiling, adjustable and water-cooled. Fitted with Standard Steel Knives, Special Heat Treated Steel, Bronze or Manganese Steel Plug and Shell Lining.

For full particulars apply to

DILLON MACHINE CO., Inc.
Builders of Paper Mill Machinery
Lawrence, Mass.

Finished Jute—			
Dark, 18 basis	.30	@	.31
Light, 18 basis	.28	@	.30
Jute Wrapping, 3-6 Ply—			
No. 1	.21	@	.23
No. 2	.21	@	.23
Tube Rope—			
4-ply and larger	.15½	@	.17½
Fine Jute—			
4-ply and larger	.20	@	.28
4-ply	.21	@	.24
3-ply	.22	@	.25
Unfinished India—			
Basis	.14½	@	.15½
Paper Makers' Twine Balls	.12	@	.13
Box Twine, 2-3 ply	.14	@	.15
Jute Rope	.20	@	.40
Ameri. Hemp, 6	.30	@	.32
Sisal Hay Rope—			
No. 1 Basis	.14	@	.16
No. 2 Basis	.10	@	.12
Sisal Lath Yarn—			
No. 1	.14	@	.15
No. 2	.11	@	.13
Manila Rope	.18	@	.19

CHICAGO

Paper

F. o. b. Mill

All Rag Bond	35	@	40
No. 1 Rag Bond	25	@	35
No. 2 Rag Bond	14	@	25
Water Marked Sulphite	9	@	12
Sulphite Bond	7	@	10¼
Sulphite Ledger	9	@	12
Superfine Writing	18	@	24
No. 1 Fine Writing	14	@	18
No. 2 Fine Writing	12	@	14
No. 3 Fine Writing	9	@	12
No. 1 M. F. Book	5½	@	7½
No. 1 S. & S. C. Book	6	@	7¾
Coated Book	7½	@	10
Coated Label	7½	@	10
News—Roll, mill	3½	@	4¼
News—Sheets, mill	3¾	@	4½
No. 1 Manila	4½	@	5½
No. 1 Fibre	4½	@	5
No. 2 Manila	4	@	4½
Butchers' Manila	3¼	@	4¼
No. 1 Kraft	6	@	6½
No. 2 Kraft (Southern Grade)	4¾	@	5
No. 2 Kraft (Northern Grade)	5	@	5¼
Wood Tag Boards	4¼	@	6¼
Sulphite Screenings	3	@	3½
Manila Tissue, 24x36 sheet	7¼	@	7¾
White Tissue, 20x30 sheet	7¼	@	7½

Boards, per ton—
(Delivered Central Territory)

Plain Chip	45.00	@	47.50
Solid News	47.50	@	50.00
Manila Line Chip	57.50	@	60.00
Container Lined—			
(Delivered Central Territory)			
85 Test	—	@	75.00
100 Test	—	@	80.00

Old Papers

F. o. b. Chicago

Shavings—			
No. 1 Hard White	3.25	@	3.50
White Envel. Cuttings	3.15	@	3.25
No. 1 Soft Shav.	2.90	@	3.10
No. 1 Mixed	1.45	@	1.50
No. 2 Mixed	1.15	@	1.20
Ledger and Writings	1.55	@	1.60
Solid Books	1.45	@	1.50
No. 1 Light Books	1.00	@	1.05
Blanks	2.00	@	2.10
Kraft	2.45	@	2.50
New Kraft Cuts	2.70	@	2.80
Manila Envelope Cuttings	2.50	@	2.60
Ex. No. 1 Manila	2.25	@	2.35
Print Manila	1.05	@	1.10
Folded News (oversize)	.90	@	.95
Old Newspapers—			
No. 1	.80	@	.85
No. 2	.65	@	.70
Mixed Papers—			
No. 1	.75	@	.80
No. 2	.55	@	.60
Straw Clippings	.75	@	.80
Binders' Clippings	.75	@	.80

Roofing Stocks, f. o. b. Chicago, Net Cash—

No. 1	47.00	@	52.00
No. 2	45.00	@	50.00
No. 3	43.00	@	48.00
No. 4	41.00	@	46.00

BOSTON

Paper

Ledgers—			
Sulphite	.08½	@	.18
Rag content	.18	@	.36½
All Rag	.38	@	.50
Bonds—			
Sulphite	.07½	@	.10½
Rag Content	.17	@	.45
All Rag	.36½	@	.51
Writings	.08	@	.20
Superfines	.22	@	.50
News	.04	@	.04½
Book, Super	.08	@	.10
Book, Coated	.09	@	.14
Coated Litho	.09½	@	.15
Label	.09½	@	.15
Jute Manila No. 1	.11	@	.12
Manila, Sul. No. 1	.05	@	.05
Manila, Sul. No. 2	.03¾	@	.04¼
No. 1 Kraft	.05¼	@	.06½
No. 2 Kraft	.05¼	@	.05¾
Common Bogus	.02½	@	.02¾
Straw Board	—	@	50.00
News Board	—	@	50.00
Chip Board	—	@	47.50
Single Manila Pulp lined board	57.50	@	60.00
Single White, patent coated board	75.00	@	82.50
Wood Pulp Board	80.00	@	85.00
Binder Boards	75.00	@	85.00
Tarred Felts—			
Regular	61.00	@	63.00
Slaters	66.00	@	68.00
Best Tarred, 1 Ply, roll	1.50	@	1.60
Best Tarred, 2 Ply, roll	1.70	@	1.80
Best Tarred, 3 Ply, roll	2.00	@	2.10

Old Papers

Shavings—			
No. 1 Hard White	3.75	@	4.00
White Blank News	1.75	@	2.00
Manila Env. Cuttings	2.80	@	3.00
No. 2 Hard White	3.25	@	3.50
No. 1 Soft White	.02¾	@	.03
No. 2 Soft White	.02½	@	.03
No. 1 Mixed	1.60	@	1.75
No. 2 Mixed	1.25	@	1.50
Solid Ledger Stock	2.00	@	1.75
No. 1 Books, Heavy	1.25	@	—
No. 1 Books, Light	—	@	1.25
No. 1 New Manila	2.50	@	2.60
No. 1 Old Manila	1.75	@	2.00
Print Manila	1.05	@	1.20
Old Kraft	2.25	@	2.35
Overissue News	1.00	@	1.10
Old Newspapers	.70	@	.85
No. 1 Mixed Paper	.60	@	.47½
Box Board, Chip	.60	@	.50

Bagging

Price f. o. b. Boston

Gunny No. 1—			
Foreign	—	@	3.37½
Domestic	—	@	3.50
Manila Rope	—	@	5.50
Mixed Rope	2.00	@	—
Scrap burlaps	—	@	2.37½
Wool Tares, heavy	2.50	@	2.75
Mixed Strings	—	@	1.90
New Burlap Cutting	—	@	3.25

Domestic Rags (New)

Price f. o. b. Boston

Shirt Cuttings—			
New White No. 1	.15½	@	.15
Silesias, No. 1	.11	@	—
New Unbleached	.14½	@	.15
Washable	.07¼	@	.08
Fancy	.10½	@	—
Cottons—According to Grades—Blue—			
Blue overalls	12½	@	—
New Black, soft	.07	@	—
Khaki Cuttings	.07	@	—
Corduroy	.04	@	.05
New Canvas	.12	@	.12½

Domestic Rags (Old)

Price f. o. b. Boston

White No. 1	10.00	@	—
Repacked	9.50	@	—
Miscellaneous	8.50	@	—
White No. 2—			
Repacked	6.50	@	—
Miscellaneous	5.25	@	—
Thirds and Blues—			
Repacked	5.00	@	—
Miscellaneous	3.50	@	—
Roofing Stock—			
No. 1	2.15	@	—
No. 2	1.90	@	—
No. 3	1.75	@	—
No. 4	1.90	@	—

PHILADELPHIA

Paper

Bonds	.07	@	.40
Ledgers	.11	@	.40
Writings—			
Superfine	.13	@	.18
Extra fine	—	@	.22
Fine	.20	@	.26½
Fine, No. 2	.16	@	.25
Fine, No. 3	.12	@	.20
Book, M. F.	.06¾	@	.07
Book, S. S. & C.	.06	@	.07½
Book, Coated	.11	@	.16
Coated Lithograph.	.09	@	.12
Label	.09	@	.12
News	.03¾	@	.04
No. 1 Jute Manila	.09½	@	
Manila Sul., No. 1	.04½	@	.06
Manila No. 2	.04	@	.04½
No. 2 Kraft	.05¼	@	.05¾
No. 1 Kraft	.06¼	@	.06½
Common Bogus	.02¾	@	—
Straw Board	56.00	@	55.00
News Board	45.00		
Chip Board	47.50		
Wood Pulp Board	4.50	@	5.00

(Carload Lots)

Binder Boards—			
Per ton	75.00	@	80.00
Carload lots	65.00	@	70.00
Tarred Felts—			
Regular	66.00	&	68.00
Slaters	70.00	@	72.00
Best Tarred, 1-ply (per roll)	1.85	@	1.95
Best Tarred, 2-ply (per roll)	1.55	@	1.70
Best Tarred, 3-ply	2.10	@	2.15
No. 1 Mixed Paper	.65	@	.70

Domestic Rags—New
Price to Mill, f. o. b. Phila.

Shirt Cuttings—			
New White, No. 1	.13½	@	.14
New White, No. 2	.06	@	.08
Silesias, No. 1	.10½	@	.11
New Unbleached	.14	@	.14½
Washable	.07¼	@	.07¾
Fancy	.09½	@	.10
Cottons—according to grades—			
Blue Overall	.11	@	.12
New Blue	.04	@	.04¼
New Black Soft	.06	@	.06¼
New Light Seconds	.03½	@	.03¾
Khaki Cuttings	.06½	@	.07
Corduroy	.04	@	.04½
New Canvas	.03¾	@	.09
New Black Mixed	.05	@	.05½

Bagging

F. o. b. Phila.

Gunny, No. 1—			
Foreign	3.00	@	3.25
Domestic	3.00	@	3.25
Manila Rope	4.75	@	6.00
Sisal Rope	2.50	@	—
Mixed Rope	1.00	@	1.25
Scrap Burlaps	2.25	@	2.50
Wool Tares, heavy	2.00	@	2.13
Mixed Strings	1.25	@	—
No. 1, New Lt. Burlap	3.50	@	3.75
New Burlap Cuttings	3.25	@	3.50

Old Papers

F. o. b. Phila.

Shavings—			
No. 1 Hard White	3.50	@	3.60
No. 2 Hard White	3.00	@	3.25
No. 1 Soft White	2.60	@	2.70
No. 2 Soft White	2.00	@	2.20
No. 1 Mixed	1.50	@	1.60
No. 2 Mixed	1.00	@	1.10
Solid Ledger Stock	1.75	@	1.90
Writing Paper	1.60	@	1.80
No. 1 Books, heavy	1.30	@	1.40
No. 2 Books, light	1.20	@	1.25
No. 1 New Manila	1.80	@	2.00
No. 1 Old Manila	1.60	@	1.75
Print Manila	1.25	@	1.35
Container Manila	1.00	@	1.10
Old Kraft	2.00	@	2.10
Common Paper	.50	@	.60
Straw Board, Chip	.60	@	.65
Binders Bd., Chip	.60	@	.65
Over issue News	.85	@	1.00
Old Newspaper	.70	@	.75

Old White, No. 1—

Repacked	6.75	@	7.00
Miscellaneous	6.25	@	6.50
White, No. 2—			
Repacked	.05	@	.05¼
Miscellaneous	.04¼	@	.05
Thirds and Blues—			
Repacked	3.75	@	4.00
Miscellaneous	2.75	@	3.00
Black Stockings	4.25	@	4.50
Roofing Stock—			
No. 1	2.00	@	2.15
No. 2	1.90	@	2.00
No. 3	1.25	@	1.35
No. 4	1.10	@	1.20
No. 5A	1.10	@	1.15
B	1.05	@	1.10
C	1.00	@	1.05

TORONTO

Paper

(Mill Prices to Jobbers f. o. b. Mill)

Bond—			
Sulphite	.10½	@	.12½
Light tinted	.11	@	.13½
Dark tinted	.12½	@	.15
Ledgers (sulphite)	—	@	.13
Ledgers No. 1	.36	@	—
Ledgers No. 2	.27	@	—
Writing	.09½	@	
Writing S. C.	.10	@	
News f. o. b. Mills—			
Rolls (carloads)	3.50	@	—
Sheets (carloads)	—	@	4.25
Sheets (2 tons or over)	—	@	4.60
Book—			
No. 1 M. F. (carloads)	8.00	@	—
No. 2 M. F. (carloads)	7.50	@	—
No. 3 M. F. (carloads)	7.00	@	—
No. 1 S. C. (carloads)	8.50	@	—
No. 2 S. C. (carloads)	8.00	@	—
No. 3 S. C. (carloads)	7.50	@	—
No. 1 Coated and litho	14.50	@	—
No. 2 Coated and litho	13.50	@	—
No. 3 Coated and litho	12.75	@	—
Coated tinted	.15	@	—
Wrapping—			
Rag Brown	4.75	@	—
White Rag	5.25	@	—
"B" Manila	5.50	@	—
No. 1 Manila	6.50	@	—
Fiber	6.50	@	—
Kraft, M. F.	7.00	@	—
M. G.	7.15	@	—

Pulp

(F. o. b. Mill)

Ground wood	30.00	@	32.50
Sulphite easy bleaching	60.00	@	65.00
Sulphite news grade	55.00	@	58.00
Sulphite, bleached	75.00	@	80.00
Sulphate	62.50	@	65.00

Old Waste Paper

(In carload lots, f. o. b. Toronto)

Shavings—			
White Env. cut	3.65	@	—
Soft White Book shavings	—	@	3.15
White Blk, News	1.70	@	—
Book and Ledger—			
Flat Magazine and Book Stock (old)	1.25	@	—
Light and Crumpled Book Stock	1.10	@	—
Ledgers and Writings	1.40	@	—
Solid Ledgers	1.40	@	—
Manilas—			
New Manila Cut	—	@	1.00
Printed Manilas	1.10	@	—
Kraft	2.25	@	—
News and Scrap—			
Strictly Overissue	.90	@	—
Folded News	.90	@	—
No. 1 Mixed Papers	.70	@	—

Domestic Rags—
Price to mills, f. o. b. Toronto

	Per lb.		
No. 1 White shirt cuttings	.14½	@	.14¾
No. 2 White shirt cuttings	.08	@	.08½
Fancy shirt cuttings	.09¼	@	.10
No. 1 Old Whites	—	@	—
Third and blues	—		—